

Junction to Sungai Kasadrai - 1st turn left by Ranjau  
11m from Ranjau 205m  
0 49 58.8" ~~turn left~~  
112 52 22.6"

Riang  
Junction to Sungai ~~Sekatin~~ turns to left.

0 49 09.4

112 51 45.8 Here bendy West,  
river to SSW. Red pool

junction, probably from logging company  
LADANG ALL WAY

Riam Penabam - double rapids

0 48 27.9  
112 51 32.9 220m

Just up from Kiam Kelahan, turning from E-W to  
SE, North away bridge Sungai ~~Masin~~ Samba. This  
goes past camp Block - heavily silted MASAWEL

0 48 23.1

112 51 33.8 (300m from junction)

STILL LADANG

~~Kiam Bajasepapak~~ Baja Basapak

0 47 39.3 250m

112 50 49.9

NOMORE LADANG - River difficult to pass.  
Last stream shortly downstream, belongs to  
a local woman

T. Rajang 14.1 km / 138° to Rajang

14.1 km, 138° to

[SAME] - WP-28

Camp 1 -

0 46 26.9 } 275m

112 49 04.6

SPS finches. Bp or lightning. By river by  
a couple of small islands. Very thick, one  
on one. Already found Puffin. App. was  
as a Cat Caracum at white fruit,  
not Intercala, and a Shorea

At this point logs are still taken, barked,  
and left in the river until carried down by  
flow. Most are ~~unmarked~~ unmarked, 25' long.  
A few are marked by cut in the bark saying

downstream and availability of wood at the  
river confluence.

Friday Feb 10, 1995

~~Up~~ From "a bit below" Camp 1 logs are no longer  
taken. Rapids are met every 200-300m, slowing progress  
considerably. The fix below is another River - have  
to unload all boats to negotiate it

$0^{\circ} 45' 18.6''$  } Good fix

$112^{\circ} 47' 31.3''$  } (215m?)

Banks on the right side of the river going up, generally  
steep. The western bank is sometimes steep,  
sometimes flatter and a bit. All along way we  
see Dipt. drong.; The Blue dragon, the cardinal.

TAMAN NASIONAL  
RIAM TARUNG

[BBRB63]

B  
 TN  
 63

255m NATIONAL PARK  
 STILL ON SUNLAI, SABOA

0° 45' 03.4" } 100m  
 112° 46' 46.5" } 5.6  
 TO BATES

Lots of rapids up to this point. Difficult  
 to navigate. One blotch already  
 punctured and cap over - lost on bar

Camp 2 [BRC-2] 295m

17K  
 1350

~~0° 44' 09" 112° 46' 19.9"~~  
 This camp was first made by Noddeboom, ~~lost~~ and  
 since then has been regularly used by fishermen,  
 gahong hunters, people just out and about.  
 The fishing is incredible. We got out the  
 boat and the guys caught a 50cm gahong  
 with their hands. Within minutes of nets another  
 2 were found. ~~the~~ 5 we have seen

0° 44' 15.4" } 295m  
 112° 46' 22.4"

Program has been v. slow. We all get  
 tired pushing the boat up the rapids,  
 and hardly help at all. We should be  
 as far as we can get to the blotch tomorrow  
 afternoon



Two more are further up the mountain. The plan  
is to collect tomorrow and let some of the  
guys rest the day after we all go to the  
summit. There seems to be a collective opinion  
regarding this. We have a lot of fat at the  
way up. I'm in good luck. It appears they  
transported the helicopter for some time in  
1970, but it.

The new bank vegetation has changed. The  
Santiria (?) ~~flavens~~ fringing stream-beds is  
not here. There is a lot of less vegetation.  
The river has been very difficult to negotiate  
so far. We are going and use the Mlotoh  
as an unbridled wheel-barrow. But it is  
The trip to BR should take 2-3 months to  
get to. I am not sure. I am not sure. I am not sure.  
I am not sure. I am not sure. I am not sure.  
I am not sure. I am not sure. I am not sure.

2 1 55 117 46

~~NNN N NNE 180~~  
~~NN NE 142~~  
~~NNN S 2~~  
~~-W~~  
~~SNN SEE~~  
~~SNN SE~~  
~~SNN S SE~~

Sun. Feb 12

Loads of fish have been smoked, ready for tomorrow  
 One day's collecting, then to-morrow to the top.  
 Pak Mui says by the camp we are at / an old  
 today is about "100 yrs" old Has planted during

TUMBANU TO SA is camp This walk from  
 here where N warbon stayed - To right before is S, Harom

ENG Peters - the wild chicken test J.

~~Harom~~ Camp 2 is 36km from Jalunday,  
 3120. Not far.

Chicken sacrifice this morning - picture taken

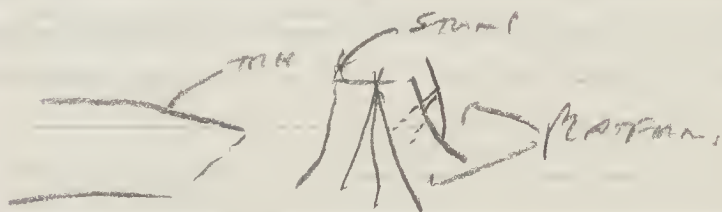
river and heads straight up the hill. The  
guide lost the way so we camped at our  
current location by the river. Mule and mule  
found Thursday Deer while searching for it  
yesterday afternoon. It is the best deer  
here.

The port in the basin well kept. Locals can  
see at the end of one party every 2 or 3  
for a "jira". Its almost a religious  
significance especially of the children  
sacrifice. At the top they take some wood  
they like and make a small picture  
back at the village.

Some pandas were seen in the way.  
2000s will be a good time  
if they do not have them in the  
village.

Examples were the testy Beccarua and  
Rambutan. They were very excited to  
see a rambutan tree, but did not  
seem inclined to take any seeds back.

We ~~also~~ also found a large Dipterocarpus  
by the river, dbh 70 cm, cut by hand axes  
a tapered platform.



According to our guide, this would have  
been the last of the river.

[But Adiantum and Fern trees  
in villages]. The effort involved  
here must have been enormous.

The river flows quickly, very fast,  
past of falls and large rapids.

Diversity here does not appear too high. We have few flies and frogs, the guys reacher September is the time to be here.... Alison! Bees are few, only one butterfly seen, quite a few flies. None of the insects are insane - NO LEECHES!!!

Temp dropped to  $13^{\circ}\text{C}$  last night. With the sun it seems to get to  $27^{\circ}\text{C}$ .

This ridge runs East-West. To S-SW is Kalbar, N-NE Kallery. Winds are carrying the clouds from Kallery to Kallery. SW of this point, two scars are seen. One to SSW would appear to be a landslide one more to SW in a flat area. No fire, logging, badging is evident checked from satellite map.

We are 29.6 km from RJONG  $134^{\circ}$

926  $225^{\circ}$  Boyer

\* Guides say there are 2 types of Dacrydium here, the small one at the summit, the larger one here at 2000m

July 1880

July 1880

Tumbang ~~Dasa~~ TOSAH [TUMTOS]

460m.  $0^{\circ} 41' 40.0''$  /  $112^{\circ} 44' 25.8''$

River is about 12m wide, rushing over granite boulders.  
B River runs NW-SE at this point. Banks are  
not particularly steep, lots of Shorea. No Dipt. Abt.  
proffer slow river?

Left river at 10.00

- 750m - guys leave their Dallies behind - too  
slippery lets

- 870 come across Agathis

2.00pm. Stop to make camp. This is the  
last place where water is accessible until the top.

Dipts are getting fewer, Fags are more so (infl. on ground)  
Agathis v. infrequent. Throat trees we get good views  
of mountains below. Lichens are starting to get forest-like,  
mosses common - start of closed forest.

We have been climbing every steep ridge. (even  
knackered on many occasions - but worth it)

Camp at 1200m

- Campy max 15m tall.

- Water is a long drop from camp.



Feb 15 '95 - Wednesday

[BRANAD]

0' 39' 35.8" ) 2310m  
112° 41' 20.7" ) 7580'

I thought I was going to die.....

[1430m - Balanayharu]

We left the last camp at 7:55 am, w/ 1100m to go. At 1400 we were clearly in the last of the ~~bagasse~~ bagasse forest going into moss forest. At 1800-1900m the walk becomes rougher, back w/ large drops on both sides, at one point > 200m. Sometimes we got views of the top of Br Naga. The walk goes a long way through moss forest, ~~very~~ very ~~crude~~ - Stelima noted at 1800m. At this alt. w/ have clumps of Ericaceae, Nepenthes, mosses and ferns. The bracket (C/S) is a bit different from years of occurrence here. Despite this, the area is pristine.

Top of Summit is like a ~~very~~ very maze through moss forest

minutely ~~flaking~~, inner bark orange yellow  
Lvs light green above, v. light ~~blue~~ green  
below. Venation not prominent but distinct.  
Fruit with persistent reflexed red calyx  
Carpels opening purple. As turgid (?) enlarges,  
seems that ~~new~~ carpels start to abort until only  
1 or 2 are left. Fruit about 1.5 cm across  
Rare

5002 x10

X Passiflora Passifloraceae ✓  
Liana - common by roadside. Fls 3 cm across  
Petals white, appendages purple below, white  
above. Fts start green, ripen orange. When  
ripe, bract fall away exposing entire fruit.  
About 16 seeds per fruit, sweet. Lvs light  
green.

5003 x10 Rubus mollis Rosaceae ✓

★  
Liana, common by roadside Lvs dark green  
above, ~~light green~~ below covered in wax-brown  
tomentum. Fruits w/ persistent reflexed calyx,  
capsules red. Flavors sweet.

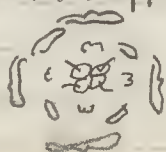
5004 x10 ★ Senecio Asteraceae ✓  
A-5

Herb. Locally abundant in thin cleared area.  
To 1 m tall. Florets yellow.

5005 x10 Cosmos Asteraceae ✓  
★ A-5

Locally abundant. Herb, to 1 m tall. Lamina green,  
rachis red-purple. Ray florets rich purple,  
disk florets golden yellow. Yg flets light  
green, lower part of flet black purple.

★  
5006 x10 Brucea Simarubaceae ✓  
Locally abundant. Shrub, to 2 m. Lvs  
light green w/ light indumentum  $C_4H_4A_4G_4$   
style 4, stamens app 6.  $Stas$   $apoc$   
Fls minute



Locally abundant. 0.75 m tall. Ligules (?)  
black, bracts purple-black, seath becoming white

5009 Ficus Moraya ✓  
X10

Tree, 10 m branching near base. Bark grey-white,  
littered patches. Synconia green, orange red  
at apex. Lvs <sup>light</sup> green above, light green  
below. Calyx sticky white latex.

5010 Linaceae / Indorouchea (?) ✓  
X2

Liana. Leaves light green above and  
below. Fruits orange, single seeded. Calyx and  
styles persistent. Calyx green, style dried and  
black.

5012 Fabaceae - Phanera(?) ✓

x9

Climber. Bark brown, densely covered in red  
lenticels. Stipules green below, red above, soon  
caducous. Young petals yellow, becoming  
orange then green. Lvs dark green above, light  
green below in misty-red indumentum in vns.

5013 Artocarpus Annonaceae ✓

x8 Climber. Bark smooth, brown. Young twigs  
green. Sepals green

5014 Melastomataceae x5. ✓

Climber. Calyx and bracts of ovary thick black red  
indumentum. Corolla 4, Ag, petals white  
Lvs glaucous below in red indumentum

5015

Fabaceae x10 ✓

Climber. Lvs trifoliate, stipules persistent.  
 2 fls leathery, dark above, lighter below  
 w/ rust-red indumentum. Yg pods with a  
 silky indumentum. Bark red-brown. Fls pale  
 yellow - some already recter reddish. Older  
 pods membranous.

5016 x10 ✓

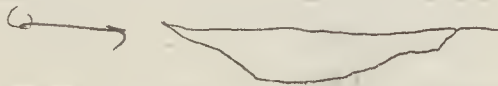
Celastraceae

Scrambler. Lvs light gr. Inflo. in heads. Acorne  
 haysmithii-succ. ~~leafy~~ Ca 4, 4 Ag. Petals  
 white, anthers yellow. Fruit a 4-winged capsule,  
 single seeded.

5017 x4 ✓

Fabaceae cf Peris

Wing fls 3cm long Petals white Wing white  
 outside yellow centre. Laterals white. Keel  
 yellow. Pod 1-20cm x 4.



Small tree, 6 m tall. Bark smooth, light  
fawn brown w/ whitish lichen patches. Fls

Small, regularly sweet smelling,  $C_4K_4A_4G_4St_4$   
one. Each carpel green (not quite ripe) w/ one  
white seed. Smell of fruit slightly citric.

5020X3 Fabaceae - Bauhinia ✓

Growing under grass. Lvs paired at both ends.  
Dark glossy above, glaucous below. Sepals  
green. Petals white, turning orange.

5021 Medinilla - Melastomataceae ✓  
L10

Shrub, 4m. Leaves leathery, waxy green. Inflo  
racemiflorous, <sup>and cauliflorous</sup> ~~calyx~~ tube red varieg. Petals  
rojo-purple, anthers yellow. Branch light-green,  
smooth, thin. Wood white.



Clumping climber. Parts glaucous and covered in  
a thin red meshy indumentum. Fl buds dark  
gray. Perianth light purple above, white  
below.

5024 x6

Vitex cf. pinnata Verbenaceae ✓

Common shrub, 4m tall, fls white) <sup>purple</sup> ~~gray~~. Bark  
darkish gray, smooth.

5025 x6

✓

Convolvulaceae

Ipomoea

Common roadside <sup>creeper</sup> ~~vine~~ ~~vine~~. Lvs: light green.  
Ct grey yellow / K bright yellow. Filaments  
white, anthers yellow.

5026 Mallotus - Euphorbiaceae x6 ✓

Common shrub, 4m tall. Bark brown gray - white patched. Lvs and twigs covered in a rusty indumentum. Lvs glaucous above, white glaucous below. Fruits glaucous covered in a thick indumentum. 5 chambered, one seed per chamber. In the 4 fruits opened only one seemed fertile, w/ purple testa.

5027 <sup>43</sup> Rubiaceae - Anthecephalus chinensis

Tree, 15m. Bark white gray. Narrowly and vertically fissured. Branches reach out vertically. Infl. terminal heads ✓

5039<sup>x1</sup> Zingiberaceae x1 - Alpinia

Grows in the ground. Fls red margined w/ tipped, yellow within. Bracts pink

0	0
4	2
7	2
0	6
0	2

5028 Fabaceae - Archidendron x4 ✓

Small tree, 5m. Fruits already old. Seeds purple-black. Bark light gray, smooth

Smooth, light gray. Lvs dark green above,  
white-red glaucous below with red indumentum  
on veins. Fts hardening, becoming spiny.

5031 <sup>x6</sup> - *Grassia hexandra*? Verbenaceae ✓

Common shrub, 4m tall. Bark red-brown, smooth.  
Lvs glaucous below. Fts purple, small like  
~~flower~~ - ~~are~~ Fts small w/ persistent calyx.

5032 x4 Melastoma - Melastomaceae ✓

Small shrub, <sup>to 5m</sup> common. Bark i b's. Petal purplish  
<sup>large</sup> stamens purple, small stamens yellow. Bark fawn  
brown. Lvs glaucous below w/ red indumentum  
on vns.

5033<sup>x6</sup> Ficus - Deltoid lvs.

✓

Spreading shrub, 2 m tall, 6 m diam. Lvs  
dark green above, lighter below w/ yellow on  
Fynaria ripening orange, fruits mixed.  
Not common.

✓ 5034<sup>x6</sup> Hamamelis Euphorbiaceae  
Shrubs or small trees to 4 m. Bark light  
grey w/ lichen patches. Lvs glabrous,  
dark green above, light below. Fls yellow, small  
Frts green, stigmas a crescent and green.

5035<sup>x6</sup> ~~Macaranga~~ Euphorbiaceae  
Common small tree. Bark scurfy dark grey/black  
Lvs light green below, yg petioles and stipules  
red. Frts ripening purple.

5036<sup>x5</sup> - Croton Euphorbiaceae ✓  
Scrambler. 1.5 m tall and spreading. Lvs  
light green. Fruits hard with a scurfy reddish  
style protruding, black.

Check # on 2nd.

~~5044~~

20:95 Alongside river Sambas - awaiting  
our stuff...

5040 - *D. p. db1*

5041 - *Apomisa*

By Sambas river, 175m : 10° 03' 18.1" / 113° 01' 11.1"

Main logging camp CAMP TURBACH-TAP

5040 *Dipterocarpus oblongifolius* Dipt.

Tree, to 20m tall, 1m dbh. Bark light-dark  
gray. Arches over river, based on bark. Leaves  
light green. Fruits red. U. common along  
river sides.

5041 Apocynaceae

Euphorbiaceae

Small tree, 4m. Bark dark grey. Lvs dark gr above, light green below w/ rusty-red indumentum on vms. Fruits, 1cm, drying yellow orange. Three seeds inside, each bright orange.

5042 Nauclea Rubiaceae

By riverside. 3m tall tree, <sup>20cm dbh</sup> bark lichen patched, fruiting heads light green.

5043 Antidesma

Euphorbiaceae

Tree to 10m tall, 30cm dbh. Bark light grey. Lvs distichous light gr above and below. Frs 5 chambered <sup>2-3cm</sup>, ripening from blood-red scarlet to black. Grows away from side of river.

5044 - Ficus

Moraceae

Tree, 5m, 30cm dbh. Bark light grey. Inner bark pink w/ white exudate. Infr. caniflorum or cauliferous Syconia ripening red, fruit brown, pear shaped. About 5x4 cm.

Tree, 4m. Bark white-brown. <sup>in panicles</sup> ~~Fruit~~ caniferous,  
reddish green fruits 3 cm diam, bright red, fleshy, 3  
loculed. One seed per locule, each with an imbricated  
purple testa. Lvs cluster at ends of branches.

5047 Orchid x1

On Baccaea (5046) Lvs yellow and pink-spotted  
above, purple and <sup>dark</sup> purple spotted below. Flowers  
white, anthers purple.

5048 Moss

off Baccaea - 5046.

5049 Moss

off Baccaea 5046



5050 Licula

ACEGEEAE

Palm, stem 1.5 m. tall, fruiting at apex. Fruit green, ~~leaf~~ 1.5 cm diam. Endosperm white, embryo rust brown. Leaf stalks 2-3 m long, armed on the sides below.

5051 - Bracket fungus on fallen tree

5052 - Fern - climbing Shorea sp.

5053 - Vroophyllum

Rubiaceae

Shrub - 1 m tall. Lvs glaucous light green below, lime green above. Calyx tube orange, petals white. Bark grey-black.

5054

Canarium - Burseraceae

Tree, 15 m tall, 35 cm dbh. Lvs light green below w/ red indumentum, darker above. Fruits light brown, 7x4 cm, calyx 1.5 cm across, Pericarp  $\frac{1}{2}$  cm thick, one locule aborting - the fruit not open. Foliar exudate clear exudate.

Slender, bark light gray. Foliage shoots  
green. These shoots and leaves turn light  
green. Articulating pedicels dull red. Flower  
parts yellow-orange. Frs red 1 x 0.5 cm,  
pericarp 3m, seeds in fleshy aril (?), colorless

5057

Lichen on bark of Canarium (5054).  
Light gray, occurring in patches.

5058 x 8

Shorea (Sterhony?) Dipterocarpaceae

Tree, 6m tall, 15cm dbh ALREADY FRUITING!

Bark light brown, very lichen patched.

Lvs distinctive on branches. Frs green, red on  
wings

5061

Moss growing up creeper

5062 x 6

Hydrocarpus

Flacantiaaceae

Tree, 6m x 30cm dbh. Bark light-dark grey, smooth. Inner bark light brown, wood yellow. Lvs light green to yellow green. Fruit is 3-10 cm, russet-brown. Inside of fruit white, older less

~~5062~~

5063 x 6

Apocynaceae

Euphorbiaceae

Tree, 7m, 20cm dbh. Bark, long, fissured, brown, flaking. Inner bark thin, brown, wood yellow. Fruit matt, light scarlet, 1 x 0.75 cm. Calyx persistent. Seed 1, testa yellow. Embryo

flattened across the largest dimension of the seed.

5064

Small Bram bracket fungi,  $< 1$  cm across,  
on branch of fallen Shorea.

5065

Orchidaceae

Growing on fallen Munting. Flowers 0.7 mm,  
white w/ 4 vertical purple-bronze stripes inside

5066

Shorea

Dipterocarpaceae

Tree, 25m, 50 cm dbh. Outer bark dark  
brown w/ longitudinal fissures, fleshy.  
Bulbiformes 1.5 m up, 1 m out. Pannier  
yellow. Wings of seeds red.

5067

Moss from fallen Euphorbia tree.

5068 Gesneriaceae x1 Res  
Epiphyte on fallen Euphorbiaceae. Lvs  
light green below, dark green above.

bark green. Wood distinctly angled.

5070

Moss on outer limb of a large Shorea

5071 Fungus

Fungus on climb of ~~Hydn~~ Hypocrea flaccidissima  
White, almost transparent, gregarious ear  
type fungus

5072 Pison deltoidea

Moraceae

"Tabat borito"

Climber. Leaves dark glossy green above  
light green below. White latex on cut parts.  
Synchia green, 1 cm diam. Fruits red.  
Growing up a mesquite.

lt's petals purple. Anthers yellow.  
Fruits dark purple, inside of being darker with  
numerous seeds. Inflorescences prominent because  
of cream white bracts.

### 5075 fungus

Growing as small cluster of 0.7 cm tall of  
mushrooms. Rusty orange red. Distributed at  
irregular intervals along about 3 m of a branch  
of a Shorea.

### 5076

Mallans - Euphorbiaceae

Small tree. Twigs, petioles, stipules and leaf  
undersides w/ not red inflorescence. Ffrs  
2 cm across, breaking into three.

Small tree, 5m. Bark light grey, green  
below. Lvs dark green above, light below.  
Inflo. axillary, buds yellow green.

5079

Lichen off trunk of large Shorea, 75 cm  
d.b.h.

5080 Humata of Fern

On trunk of large Shorea, 75 cm d.b.h.

5081 *Preraphanea*? Rubiaceae.

Tree, 15 cm d.b.h. Bark smooth, light  
grey. Lvs lightish green. Catyp. tube green.



5083 Orchidaceae Coelogyne(?)  
Epiphyte on Annonaceae (5082). Lvs  
dull red-bron. fls translucent fawn  
brown, dark brown abv and blw entrance  
to flwr.

5084 Polyalthia Annonaceae  
Small tree, 5 m. ~~Tree~~ Bark smooth and light  
gray. Lvs dark green above, light below.  
Fruit bright red, 2 x 1 cm. Seed white

5085 Euphorbiaceae  
Tree, 8 m, 20 cm dbh. Bark gray, smooth  
Lvs light green. Frt light green, fuzzy, warty.  
Seed orange, bright white. Inside skin of  
fruit is a brown layer, 3 mm thick.

5086

Lichens on lvs of 5085

5087

Lichens on lvs of 5082

5088 Ficus - Marauae

Climber on large shrubs. Bark brown grey. Lvs leathery, glab, smooth. Syncoenia glab, 1 cm diam, fruits brown.

5089 Moss on large Meranti

5090 Fungus breeding down meranti  
orange and gelatinous.

5092 Lichen from branch of 5093 - Lithocarpus

5093 - Lithocarpus x6

Tree, 10m, 30 cm dbh. Bark smoothish, brown, heavily lichen patched, inner bark red, wood yellow. Petioles dark, lvs leathery.

5094 Lichen from branch of Shorea, 5091

5095 Fern. Lvs light green. (Marattia  
(DNA) Polypod)

5096 Myristica - Myristicaceae x10 (DNA)

Tree, 15m, 35 cm dbh. Bark lightly fissured  
gray, and vertic (2x1 cm). First branch @ 10m.  
Lvs green above, brown glaucous below. Fruits  
brown, 8x5 cm, seed 4x1 cm, and white  
dissected to base.

5097. Mass from bark of Myrist. 5096

5098 Melastoms - Euph. x1

Tree, 4 m, bark brown. Lvs light gm ~~below~~ above,  
v. light below. Frts 2 cm across, springy

5099

Blue thallus crusty lichen on limb  
of Macaranga. Tree sterile so ~~bag~~ put  
in bag for future identification

5100

Yellow white crusty lichen on Myristicaceae 5096

5101 Shorea Dipt - MK (DNA)

Tree 15 m, 20 cm dbh - Bark smooth, light  
brown, smooth lichen patchy, lvs small,  
thin, not barely visible. Fls buds small, about  
5 mm long. Wood yellow

on the bark

Accrescent petals to about 4x1.5 cm, scarlet-pink  
fruit dark.

\* Inner bark red, wood yellow-pink

~~5103~~ Lichen from bark of Swintonia 5102

5104

DNA

Sonchastylus

Sapotaceae. Tree, 15 m, 30 cm dbh.

Bark dark brown, slightly rugose. Cut palm  
exuding sap. Lvs gracile, light green below,  
dark above. Young lvs brown below. Gland  
dots visible to eye - dark green, fls brown, 5x3 cm  
rugose, calyx lobes accrescent.

5105

White lichen on bark of Sapotaceae  
(5104)

5106 - *Araceae*

Herb, 0.75 m - Stems green, fruit orange, 1 x 0.5 cm

DNA  
5107 - *Eleocharis* *Eleocharis*  
1 flower specimen, Bark dark brown, Petioles light  
green. Vase on lvs yellow. Fruits 1.5 cm long

5108

Moss/lichen patch from branch of Shorea

5109

Orchid from branch of Shorea

5110

Leaf lichen on Shorea - 30 m tree

\* 5107 - found the tree. DNA

Tree, 25 m, 45 cm dbh, Bark almost reg. fissured  
lvs 1 x 1 cm blades, hard. Inner bark red, wood  
yellow. First branch 10 m.  
Bark light - dark grey.

5112

Shorea - Dipt x 8

Tree, 25m, 60cm dbh. Bark peeling fissured  
chocolate brown, wood yellowish. Lvs  
waxy smooth. Fts in axils

5113

Lichen from bark of Shorea (5112)

5114 Vatica - Dipt x 8 DNA

Tree 20m? Bark shallow fissured, grey lin.  
Branches bark smooth after lichen peeled  
Young twigs and ins of lvs w/ a brown tomentum  
Fts 1cm across, then cut along of oil glands  
around the seed exude resin. Outside of  
fruit fuzzy brown.



Testa purple.

5117 *Medinilla* - *Medinellaceae* X6  
Climber on Shorea. Bark light grey, knotted.  
Lvs glossy dark green above, glaucous light  
green below. Infls. rachis light orange. Petals  
orange, other parts orange yellow.

5118 *Orchidaceae* ~~*Pantepiphyllum?*~~  
Epiphyte on *Shorea* @ about 50 m. Found  
on underside of canopy branch in crown

5119 *Pinanga* - *Areaceae* X1  
Herb, 1 m tall. Fruits cream white, seed cream and  
marbled orange in X-section.

undersurface venation of red-brown intermediate  
Calyx tube of red-processed silky intermediate.  
Lvs dark green above, glaucous (slightly) below.

5122 Rubiaceae Ixora x1

Shrub 1.5 m tall. Bark smooth, light grey.  
Young shoot green, inflo. rachis purple, peduncle  
dark purple, fruit light green

5123 Celastraceae x2

Pohon, 1 m, 15 cm. Bark light grey, rugose.  
Lvs light green below. Fruit 6 x 2 cm, 3-angled

5124 Euphorbiaceae x4

Shrub, 3 m. Bark chocolate brown. Lvs leathery.  
Fruit green, 3-lobed, one seed per locule.

Tree 15m, 20 cm dbh. Bark black, tightly vertically fissured. Lvs dark abv, light below. Fl & fr black, pericarp 1 cm yellow, 13 seeds embedded in pulp. Wood yellow.

5128 Dendrobium - Orchidaceae  
20 m up a fallen tree trunk. Spreading on main trunk. Petals cream-green inside, purple and yellow patched above. Planch to about 15 cm long.

5129 Aceae x1  
Herb, 20 cm tall. Infl 10 cm. Fruit orange 1.5 x 0.75 cm, seed white.

5132 - *Baccaurea* Euphorbiaceae X10 (DNA)

Small tree, 6m. Bark grey, smooth to slightly striate. Leaves clustered at ends of twigs.

Lvs light green below w/ yellow midrib and secondaries, but dark ins. Fats red, 2 cm diam. Seeds 3  
testa's ~~dark~~ iridescent purple. X10 cm dbh

5133 Euphorbiaceae *Cleistanthus?* (DNA)

Tree, 3m. Bark light grey. Lvs light green  
Fruit dull green w/ dark brown line down into  
stature of each caplet

5134 Rubiaceae

Tree, 6m, slender, 5 cm dbh. Lvs light green  
below. Frn about 1 x 0.5 cm, still immature  
and green. #30 Venation almost  
invisible

5135

Rubiaceae

(DNA)

Tree, 5m, slender. Bark red brown, Lvs light green below w/ prominent 3° venation. Calyx tube green, rest of flr white.

5136 Rubiaceae - Lora

Small tree, 5m, slender. Lvs waxy green below w/ yellow midrib, dark above.

Reich of inflorescence red, flower orange pink, corolla tube to 7 cm long.

5137 Alpinia - Zingiberaceae

Herb, 1.5m tall. Inflr. terminal. Fls 5 cm long. Calyx white. Corolla dull orange outside, bright orange inside with red markings. Stamens tube white below, white-pink above, brown at apex.

5138 Moss growing on side of a tree of Sapotaceae

5139 yellow lichen growing on side of (DNA) tree of Sapotaceae

5142 x1

Fern. On forest floor. V. dark green

5143 x1

Fern. Growing on upper limbs of Shorea

5144 Maranta - Araceae? x1

Herb 25 cm dbh Fls white, corolla tube  
10 cm long. Fl. 3x2 cm white, spurred behind  
✓

Medicinal

Melastomataceae

Epiphyte on Shorea. Bark light grey.  
Inflo. rachis bright red. Frts light orange,  
numerous minute seeds inside

5147 Ochnaceae X1

Shrub, 0.5 m tall. Bark light grey. Yg  
sheath w/ dense bracts. Fls 4 cm pedicels.  
Growing on a steep wet bank

5148 Ericaceae - Gaultheria X3

Epiphyte on large Shorea. Bark red-brown,  
heavily lenticelled. Bark brown, persistent  
on inflorescence. Frt still young, 0.75 cm diam.

(DNA)



Epiphyte on ~~the~~ Dipterocarpaceae. From  
upper canopy branch

5051 Orchidaceae

Epiphyte on Dipterocarpaceae from upper  
canopy branch

5052 Orchidaceae

Epiphyte on Dipterocarpaceae. From upper  
canopy branch. Calyx green, petals green and  
red

5153 Fabaceae?

(DNA)  
Climber. Bark dark grey, lvs dark above,  
light below. Fruit bright red

5154 x 6

(DNA)

Syzygium

Myrtaceae

Tree, 10m, 30 cm dbh. outer bark red  
brown. Inner bark fawn-brown. Lvs light  
green, leathery

5155 x 6

Orchidaceae

Epiphyte. Fls - calyx cream-green. Petals  
white, inner labellum yellow. Anthers  
yellow-cream. Fls 3 cm long

5156<sup>x1</sup>

Chunia

?

Orchidaceae

Leaves green below, purple above. Fls  
purple, white and yellow inside, 1 cm long

5157<sup>x1</sup>

Orchidaceae

(Agrostophyllum?)

Pachin and some lvs orange, the rest  
orange-green. Fls clumped at apex of shoots,  
1 cm long, orange-yellow in color

Epyphyte. Fls 1 cm long yellow-green  
outside, purple within.

~~5160~~

5160 Fern Diphalia? DNA

Epyphyte on Shorea.

5161

Moss on Shorea

5162 x1

DNA

Microcos - Tiliacea

~~Shorea~~ Tree, 7m. Bark light  
grey. Fruit drop shaped, bright orange. 17  
bright orange flesh. One seed, Relishes  
shredded taste.

5163

Moss-branch of *Dipterocarpus*.

5164 Baccaurea *Euphorbiaceae* X3

DNA

Tree 5m. Bark light grey, thin. Wood light yellow. Leaves light green forming pseudostems at branch ends. Inflorescences cauliform. Berries bright scarlet red, to about 4 cm across, fleshy. Taste good but sharp. Seeds w/ fr. under coat purple-violet testa.

5165 *Ficus*

- *Adrocephalum*?

X3

Epiphyte on tree (5m). Stay is that thin only grows on small trees. ~~Not a tree~~  
~~not~~

5167 MF X10 (DIA)

Shorea Dipt. - Herbar. Shorea lamellata

Large tree to 30m? Bark smooth brown,

flaking in flakes of  $6 \times 8$  cm, Red

inner bark brown, wood cream white

Butresses large and spreading. Lvs dark

above, waxy white below. Fls 1.5 cm long,

petals yellow above, pink below, 3 calyx lobes  
broadly reflexed. Anthers 12, white.

5168

Lichen from Shorea (5167)

5169

Lichen from Shorea ~~5168~~ - Meranti marsh  
upper branch

Epiphyte on Shorea. Bark fawn brown and  
heavily lenticelled, thin. Inner bark green,  
wood white. Lvs pale green w/ yellow  
vms. Fl buds and inflorescence fresh covered w/  
a red mummurken.

5172 Shorea Skills x 4 (DIA)

Tree, 1/2-30m, 70 cm dbh? Buttresses tall  
and spreading, 4 x 2. Bark stripping  
red-brown slightly vertically fissured. Heavily  
lichen patchy. Twig bark darker red brown  
heavily lenticelled. Damar white. Stems 1 x 0.75 cm,  
tetragonal, corky.

Clicker on Meranti. Bark brown gray, Young twigs  
green, immature lvs green, white above, Lvs light  
green

5175 Microcos - Tillicia (DNA)

Tree, 6m, 12m dbh. Bark grey, white. 1/9  
twigs w/ fuzzy indumentum, Lvs dark green above,  
light below. Fts deep shaped, 2x1cm,  
orange, flesh yellow orange, single seeded

5176 Moss community on bole of Shorea

5177 Fern on bole of Shorea x 1.

5178 Fern on bole of Shorea

5179 Fern on bole of Shore x 4



5182 Euphorbiaceae (DNA)

Tree 10m, 10cm dbh. Outer bark red-brown, inner  
bark red, wood white. Twig bark red brown,  
Lvs light green. Infls. terminal, buds green.

5183 Actinidia - Maraceae - "Hilang"

Tree 20m, 25cm dbh. Bark light gray,  
lichen patched. Twigs grey to red-gray.  
Lvs dark green above, orange yellow below.

Fruits about 25 x 15cm, yellow orange outside,  
yellow spin. Eaten by gibbons

Cut part exuding sticky white sap

(FRUITS WRAPPED, SPIRITS IN DIFFERENT BARK)

5184 Xanthophyllum Polygalaceae ? x10

(DNA)

Tree, 10m. Bark light grey, thin, flaking. Inner  
bark yellow, wood yellow & twigs green.

5186 Myrsineaceae X8 DNA

Clustering at base of Shorea. Bark dark brown,  
heavily lenticelled. Lvs light gm, leathery,  
venation almost invisible. Yg-fert gm  
w/ brown-red spots.

5187 Theaceae DNA Adinandra X6

Tree, 6 m tall. Bark red-brown, wood  
yellow. Lvs thick, leathery, venation  
slightly visible. Fruit green, stalk 14 cm  
long

5188 Fern - Asplenium XI

Epiphyte on bole of ~~Euphorbiaceae~~ (Fabaceae)  
(5191)

5189 - Fern - Delicately growing X5  
near the side of the bole of ~~Euphorbiaceae~~  
Fabaceae (5191)

5190 Fern on side of ~~Epiphyllum~~ <sup>Fabaceae (5191)</sup> X1

5191 Sarotham? Fabaceae

Small tree 4m. Bk. dark red-brown, inner bark red brown, wood yellow brown. Lvs dark green above, light green below. Ragwort red, fls 15cm long, seeds white.

5192 - *Eucalyptus* X8 (DNA)

Epiphyte on Shorea. Bark light grey, thin inner bark red. Wood yellow. Fls 1cm long, calyx tube urceolate, petals 5's light green color. Yg shoot green. Lvs light green, leathery, 20cm vaguely visible above, all other vegetation invisible.

5193 Shorea - Terengganu X10 (DNA)  
Tree, 20m, 60cm dbh. Buttress 1.5m up, 1.5m wide. Bark smooth, brown, hooped, heavily mossed and lichen patched. Inner bark dark grey, wood yellow. ~~Fls~~ Yg twigs thick, scaly red tomentum dense. Spikes 5x2 cm, thick leathery. Lvs dark green above, light below, rough to touch. Fls to about 12cm

yellow brown. Yg. tube and lvs with scurfy  
underneath, ~~lvs~~ Inflorescence light green,  
bracts light yellow. Lvs very light green below.

5196 Orchidaceae Appendicularia x1  
Lvs red green below, red above fls yellow  
and red Epiphytic on Baccaea

5197 Orchidaceae Appendicularia x1  
Lvs green, stem fleshy. Yg. flowers green.  
Epiphytic on Baccaea.

5198 Gesneriaceae x2  
Epiphytic on Shorea, Lvs light green  
calyx cream or scarlet. Corolla red-spotted  
w/ black stripes. Style green. Stamens few,  
yellow green, pairs of anthers prominent.

5199

X2

(DNA)

Fern. Growing on side of wet man tree.

5200

Terrestrial fern. Lvs to 2m long

5201

Lichens on lvs of Licuala palm

5202 Rutaceae - Passiflora x4

Small tree, 4m. Bark dark brown with  
dark brown indumentum. Lower bark green, veins  
cream colored. Calyx tube green, red indumentum.  
Corolla cream, anthers yellow (DNA)

5203 Shorea

Mm

(DNA)

Large tree, warty & bumpy. Bark red brown,  
smooth. Wood green yellow. Lvs matt, dark  
above light below. Buds green, sparse

5204

Leaf lichen from Shorea (5203)

Cordia white

5207 Passiflora Rubiaceae x4 DNA

Tree, 7m, 40cm dbh. Bark light to dark grey. Yg twigs w/ not red underneath. Lvs glossy above, glaucous below w/ red silky undermentum or midrib and veins. Fruit covered w/ same silky fawn-brown undermentum. Fruit yellowish inside w/ numerous seeds.

5208 Rattan Araceae  
Climber. Fruit scales green w/ brown edges

5209 ~~Araceae~~ Orchidaceae ? x DNA  
Climber w/ one large and one small tree 1 1/2 m for each. Almost all leaves

light below. Pinkish green  
growing at bottom of steep slope

5211 Arecaceae x3

fleshy herb w/ green stem. Fls white w/ 5-6 cm  
corolla tube. Growing at bottom of steep  
slope

5212 Gesneriaceae - Rhyssomorus x1

Fleshy herb. Leaf spines abundant on  
upper surface. Frt purple, 8 cm long

5213 Fagn. - Matycerium?

(DNA)

Fallen from tall tree

x2

Spare body 10 x 6 cm,



5216 - Menispermaceae

Climber on Shorea, ~~for~~ Bark rippled, brown.  
Fruits 3x1 cm.

5217 - Fern

Growing on bole of small tree near  
a stream at the bottom of a slope.

5218 Rubiaceae - Laegrethum X6

Tree 1.6 m. Bark red brown. Wood  
cream-yellow. Lvs light green above,  
woolly white green underneath, dense  
below. Corolla translucent white, hairy  
at apex. (DND)

5219 - Schefflera Araliaceae

Climber. Bark brown, fuzzy indumentum.  
Inflo. tinged purple

5220 Korthalsia. Araceae x1

Climber Fts round, 2 cm diam. Scales  
red-brown w/ black margin. Flesh dirty-brown  
color. Seed white with black stripes in X-section

5221

Lichen. On bark of Fagaceae Form  
large yellow-green patches

5222

x4

DVA

Euphorbiaceae Tree 5 m, 6 cm dbh  
Bark red brown. Fts green, drying [1 cm]  
black-purple on tree before splitting. Lvs  
light green below.

5223

Bracket fungus on fallen branch

Fabaceae

Tree, 15m, 35cm dbh. Bark light brown,  
smooth, heavily lichen pitted, thin. Tiny  
bark light grey. Fls white except for yellow  
stamens, fls 7cm long, stamens 1cm.

5226

Lichen from bark of legume - 5225  
Patches white, to 20x30cm

5227

Moss from rotting log

5228

White mold like mushroom on underside  
of rotting log

\* Top of Hill - 3400 m \*

## RIDGE FLORA

5229 Anacardiaceae - Xylocarpus? x8  
Tree, 10, 25 cm dbh. Bark thin, light orange-gray, smooth, lichen patched. Young rings with thick brown tannin, older ones glaucous, red-gray, bark celled. Fruit 3x1 cm, green. Opening to reveal red "flesh" of 3 seeds w/ purple testas (DNA)

5230 Tetraena - Dilleniaceae x8 (DNA)  
Climber. Twig bark light brown, flaking. Fruits 2 cm long, styles so far persistent, exserted. Ovary 4, accumbent? seed 2, cream white, surrounded by white hairs

5231 x5  
Azaraea - Euphorbiaceae  
Small tree, bark gray. Young rings w/ brown tannin. Barks light scaled red, each w/ one white seed.

5232  
Lichen on leaves of a Sterculiaceae.

Lvs dark green, light below, margin serrate  
Fruit undercoat purple.

5235

DNA

1x002 - Rubiaceae

Shrub, 1m tall. Bark red-brown. Lvs  
light green and shiny below. Fruit still  
immature, green.

5236

Bracket fungus on rotting tree, 25cm  
d.b.h. Dark brown above, light grey below.

5237

Terrestrial fungus. Stock only  
black, under surface smooth grey.

5238 Swintonia. Aracardiaceae X6

(DNA)

Tree, 20m tall, 40cm dbh. Bark light grey, smooth. Twig bark faint brown. Branch below flower 2, purple. Petals 5, white inside of flower (reflexed) yellow. Infructs 2, purple, fruit purple, cut parts exuding sap turning black.

5239 Durio beccarii Bombacaceae  
X1

(DNA)

Tree, 4m tall, 20cm dbh, buttresses 1.5m up, 1m apart. Fruits 5cm diam, at base. Vascular centers near and at base for cauliferous inflo.

5240

Moss on rotting log.

5241

Moss on rotting log, Silvery green.

5242 Syzygium Myrtaceae X1

Tree, 4m. Bark brown. Lvs light green, venation almost invisible. Buds clavate, 2cm. Shoddy specimen, but moss as well kept it. [76 specs]

Wed 25: 1995 Cutting block

5243

DNA

Swintonia Anacard

x6

Tree, 15m 50cm dbh. Bark light gray, smooth, lichen patchy. Lvs leathery, dark gm above, light below. Petals white, ~~bracts~~ ~~bracts~~ red-purple. Accrescent petals to 5 cm long, red-purple. Wood cream yellow. Slesh exudate turning black.

\*5244

Lichen on bark of Swintonia (5237)  
Bran and crusty w/ 3mm black dots.

5245 Dendrobium Orchidaceae x6

Epiphyte on Artocarpus of nitidus.  
Leaves and fruits gm.

5246 Fern parasitic? x3

Epiphyte on Artocarpus of nitidus.  
Leaves glaucous petas.



5247 \*

Lichen on bark on Artocarpus of nissina. Lichen  
dusky dark gray color

\* 5248 x1

Fungus on upper canopy branch of  
Shorea. Gills facing upward, red-cream  
color. Below white

\* 5249

Blue thallus lichen on upper canopy  
branch of Shorea

5250 Dipterocarpus

x4 (DNA)

Steile Tree, 30m, 70 cm dbh. Bark brown and  
gray, irregularly fissured and roughening flaking.  
Stipules light green and red. Inner bark red

5251 Orchidaceae x8

Epiphyte on Dipterocarpus (5250)

\* 5252 Lichens on upper branches of  
Dipterocarpus (5250). Blue crusty with  
white patches, 5-10 mm long, about



5253 Sterculiaceae (Heisteria?)

Tree, 8m, 25 cm dbh. Outer bark grey-brown, flaking, inner bark bright red, bark white  
Sap colorless. Lvs stipulate, palmate  
Fruit 10 cm long, winged. "Nut" 3 cm long  
Open reveals one seed, testa reddish, v. sticky.  
Smell of beans (DNA)

\*5254

Lichens from bark of 5253

5255 Annonaceae X3 (DNA)

Tree, 6m tall, 10 cm dbh. Bark smooth, light grey  
Teng bark grey-black. Fruits to 5 x 3 cm, ripening  
yellow, seeds up to 10, each covered in sweet  
translucent white flesh. Lvs thin mid-green.

5256

\* Leaf lichens from Annonaceae - 5255

5257 Lycopodium

Epiphyte on Dryopteris (5250)

\*5258

Blue-green lichen from upper canopy branch, more of leaf lichen round, 8 cm blue-turquoise above, black below.

\*5259

Sticky black-grey lichen from upper canopy branch of Dipterocarpus. Patch about 20x20 cm, rectangular (5250)

\*5260

Moss on upper canopy branch of Dipterocarpus (5250)

5261 Dendrobium ? x3

Orchid-epiphyte on Dipterocarpus (5250)  
Petals red and white striped, fls yellow-spotted.

5262 Dendrobium ? x1

Orchid-epiphyte on Dipterocarpus (5250)  
Lvs dark green. Fls. orange pink. Stamens orange-green.

5263 Medinilla Malabaricum x4  
Epiphyte on Dipterocarpus (5250). Stem  
red. Lvs fleshy, green. Fruit green red  
peduncles. (DNA)

5264 Fern x3  
Epiphyte on Dipterocarpus (5250)

5265 Fern x1  
Epiphyte on Dipterocarpus (5250)

5266 Fern x3  
Epiphyte on Dipterocarpus (5250)

5267 Baccaea Euphoriaceae x6  
Tree, 6m, 10cm dbh. Bark grey, shiny.  
Fruit red, fleshy. Seed in indehiscent  
yellow husk. Info. coriaceous, to 25cm long,  
fruits to 2cm diam.

~~5268~~ 5268 Asclepiadaceae x1  
Epiphyte on Shorea. Lvs fleshy light green. Fls  
pink in an umbel. Growing on Shorea

5269 Areca x1  
Epiphyte on Shorea. Lvs dark green,  
fls red, light orange at base.

5270 Tenkawangkahit Shoree <sup>Largely</sup> <sup>5</sup> <sup>Stems</sup>  
Tree 30m. Buttresses 1m up. 1m at top.  
Bark smooth, slightly flaking, brown very lichen  
pockmarked. Lvs leathery, smooth, midrib  
and veins below yellow. Fruit 2 cm across at base,  
8 cm long. Wings 6 x 2 cm, red. (DNA)

\*5271 Crosty blue lichen from branch  
of Shorea (5270). Covering almost  
entire branch.

5272 x8 (DNA)  
Vatica - Tree 25m, 70 cm dbh.  
Bark brown-gray deeply and widely longitudinally  
fissured. Inner bark brown, wood light  
brown. Lvs matt green. Midrib and veins below  
rusty orange, red gland on some lvs. Fruit brown,  
1.5 - 2 cm across. Green x-section with  
a ring of "glands" releasing resin around  
cotyledons.

5273 Gahlhene x5 (DNA)  
Empty on Vatica (5272) Bark brown,  
heavily lenticelled. Lvs leathery, 2° veins  
visible but not prominent. Fruit orange-red,  
15 numerous orange seeds.

5274 Xanthophyllum polygalaceae

Tree, 10m, slender. Bark thin, brown, heavily lichen patched. Inner bark red brown, wood yellow. Fruit 2 cm long, <sup>light</sup> orange. Testa dark orange, cotyledons bright white. (DNA)

5275 Loranthaceae - Fls only X2

Parent, corolla red, pale at apex. Filament red below, yellow above, as are anthers. Style brown. Stigma black.

5276. Euphorbiaceae

Shrub, 3m. Bark dark brown, deeply and narrowly fissured. Lvs thick, leathery, dark green. Fruit greenish light green, three lobed with persistent calyx. One seed per lobe.

\* 5277 - Lichens from leaves of Euphorb.

5276

\* 5278 Moss on log at top of ridge

X5279 Blue thallus lichen on buttresses  
of Shorea

5280 Fern - Terrestrial. On ridge top X2

5281 Fern - Climber. Only a few leaves x1  
w/ spores

5282  
\* Leave lichens and moss from upper canopy  
of Dipterocarpus.

\*5283 Moss clump from fallen branch

5284 Morus Elmaceae. x10 (DNA)

Tree, 20m, 30 cm dbh, slightly fluted.  
Bark grey, black flaking. Twig bark brown.  
Inner bark fawn brown, wood yellow. Sap  
from cut parts yellow. Leaves stiffly coriaceous  
dark above, light below. Panicle 3 cm diam, with  
persistent calyx. Seed within yellow



5285 Ficus x10

(DNA)

Climber. Bark red-brown, white latex from cut parts. Bracts persistent on fruit. Syncarp. 3 cm diam, green, "bullate"

5286 Uillongken - Apocynaceae x8

Climber. Bark red-brown. Lvs venation visible but not pronounced. Fruit to 8 cm diam, ripening yellow. Seeds inside surrounded by sweet yellow flesh - sought after fruit.  
on Shorea

5287 Uncaria Rubiaceae x3

Climber. Bark grey, stem hollow (ants?) Lvs and fruiting heads light green. - on Shorea

(DNA)

5288 Orchidaceae x3

Epiphyte on Shorea

(DNA)

\* 5289 Fungus

Bracket fungus on fallen branch. Red brown above w/ c 5 mm white margin, white below

# STEEP SLOPE

5290 Colastraceae X10

Tree, 8m, 15 cm dbh bark gray, smooth, lichen patched. Leaves and young branches light green. Fruit 3 angled, still green and immature, 8 cm long. Seed: patched vertically in wings, 1 cm x 1 cm, green colored. (DNA)

5291 Vatica X3

Tree, 25 m<sup>(1)</sup>, 30 cm dbh. Bark grey, rough-flaking. Young twigs, petioles and leaf rachis with rust indumentum. Fruit about 2 cm across, 2 winged, wings 4 x 1.5 cm, red. (DNA)

5292 Shorea Mor. X8

Tree, 20m. Branches 1m up, 1m out. Bark red brown, shagbark, widely fissured. Inner bark red brown, wood white. Young branches red-brown, heavily spotted w/ white lenticels. Leaves light green below w/ yellow 2 cm s. Fts immature, wings red green (DNA)

5293 Adiantum Annonaceae X8

Climber or Vatica (5291). Bark light brown. Fruit green containing white seeds

(DNA)



\*5294

Lichen on Shorea (5292)

Right gm of white fruiting bodies, 2m diam

\* 5295

Bract figs on small tree trunk, 20cm dbh.

Orange above, yellow below with black

"hairy comb" of fruiting parts starting about  
5mm from margin

5296 Aglaia Meliaceae XI

Shrub, 1m tall. Bark brown. All young  
parts covered in red indumentum. Fl-  
buds green, open fls yellow. (DNA)

5297 Olone Zingiberaceae XI

Herb, 30cm. Stems red. Bran, lvs  
green. Inflor. red, fls yellow-orange

5298 Zingiberaceae XI

Herb, 70cm tall, Inflor. red

5299 Lasianthus Rubiaceae XI

Small tree. Bark gray-brown. Young twigs  
and undersides of leaves with silvery  
orange-red indumentum. Bark 1cm across, orange  
brown.

5300 Fam. Euphyllaceae on buttresses  
of a Huge Shorea X4

5301 Unknown X1  
Shrub, 30 cm tall. Stem 1 cm thick,  
Fruit 3 capped, 1.5 cm across, stalk 6 cm.  
Only one seen...

5302 Moss from rotting fallen Shorea

5303 Threea X8 (DNA)  
Tree, 30m, 60cm. Bark grey (light) inner  
bark white-yellow, wood white. Outer  
bark smooth. Turn bark red-brown. Fruit  
brown w/ green brown warts, 7 x 5 cm. In x-section  
1 cm seemingly "vesicled". App. 3 loculed, 2  
aborting, the 3rd with one large cream-  
white seed. [Lvs leathery]

5304 Pearsonia Melastomaceae X8  
Tree 10 m, 15 cm dbh. Bark dark brown, smooth.  
Inner bark cream, wood white. Bark thin.  
Fruit 1 cm x 1 cm, green, warty. 4 loculed,  
each with numerous tiny brown seeds (DNA)

5305 Melastomataceae X3

Herb, 10 cm tall. Lvs dark gm abv w/ long black hair. Lvs light gm glaucous below. Rachis of inflorescence red, calyx tubes gm white (DNA)

5306 Pinanga - Araceae X4

Shrub, lvs 1 x 1.5 cm, white below, green on the flattened top. Seed light orange inside w/ orange marking (DNA)

5307 Begonia Begoniaceae X4

Herb stems and inflorescence dark red, lvs light gm. Fls dark pink. Fruits gm w/ vertical red stripes (DNA)


5308 Fern

X4

Terrestrial fern, 1.5 m tall.

5309

Melastomataceae. - only fls available  
Climber. Fls clustered along stem. Bk dark brown. Fls light purple, anthers bright yellow.

5310 Orchidaceae  x1  
Saprophytic orchid. Stems black-brown,  
flaves pinking through bud, white.

5311 1x002 Rubiaceae x1  
Shrub 40 2m tall, bark dark brown.  
Fruit 1x0.5 cm.

5312 Artocarpus Annonaceae x2  
climber on ~~Artocarpus~~ <sup>ferrea</sup> Bark black, lvs  
dark gm. Fts 5x3 cm. <sup>hard</sup> Seeds covered in  
sandy white covering DNA

5313 Rosaceae - Attura? x8  
DNA  
Tree, 20m, 35 cm dbh. Bark light grey,  
lenticelled, cracked. Inner bark red-brown.  
Wood yellow-white. Leaves light green.  
Fruit waxy brown and dark brown, to about  
5x2 cm. Seeds cream white skin.

5314 Euphorbia? Annonaceae DNA  
Climber, Bark light red-brown  
Lvs membr. Leaves and young tips  
covered in sandy brown waxy substance.

\*5315 Lichens on leaves of  
Annonaceae, (5314)

\*5316 - Bracket fungus on side of  
large living Shorea (35 m, 120 m alt.)

\*5317 bracket fungus on rotting fallen  
branch (cf Shorea?)

5318 Medinilla (DNA)

Climber on Dipterocarpaceae. Bark lightish  
red-brown. In this species all leaves  
tinged purple on top to 70% of leaf  
surface, lower rachis orange red.  
Fls green, persistent calyx red. Numerous  
white seeds in fruit.

5319 Annonaceae x8 (DNA)  
climber on Connamann. Bark dark grey,  
Tery bark red-brown. Lvs glossy gm above,  
light below, leathery. <sup>Fls</sup> flowers dark  
golden-brown. Buds and lvs strongly aromatic

5320 - Shorea / Hesper

(DNA)

Tree, height medium. Bark dark gray.  
Less small, light green fl. buds green.



Thursday Jan 26 1995

Collecting in v. sloping area leading from  
ridges down to stream

5321 Loranthaceae X1

(DNA)

Parasitic on Meranti, bark light grey, thin  
lvs. thick, leathery. Fls 4 cm long, light  
red, black at apex

5322 Annonaceae

X8

(DNA)

Climber on meranti. Bark red brown, strongly  
lenticelled. Young branches and midrib of leaves  
with light rusty red caducous tomentum  
lvs. dark green above, glaucous below. Fls buds  
yellow brown with scurfy indumentum.  
Fruits 3 cm long, 1.5 cm wide green-brown. Seed  
in white testa, embedded in pithy yellow  
flesh.

5323 Lithocarpus Fagaceae

X1 (DNA)

Tree, 25 m? 40 m tall. Bark light-grey  
shallowly long, irregularly fissured. Inner bark  
red, wood yellow. Young twigs light green below  
in yellow midrib. Fls 11-15 cm sessile.  
Cups very grey-green, nut green.

5324

#Rusts and lichens from Lithocarpus 5323

5325

#Lichens from bark of Lithocarpus 5323

5326 Nepenthes X6 (DNA)

Epiphyte on Morantia. Trough 15 x 5 cm,  
3 angled, red-green. Frith 7 cm x 0.5 cm,  
green, containing numerous seeds. 4 calyx lobes  
persistent and reflexed, about 5 mm long.

5327 Epochridion Euphorbiaceae

Tree, 10 m, 30 cm dbh. Bark black and brown-gray,  
vertically cordately striate. Inner bark red, wood  
yellow brown. Lvs ~~very~~ hairy below, light green,  
dark green above. Young twigs w/ a dense white  
indumentum. Reducels 3-4 cm long. ~~Calyx~~ Sepals  
6, green, or then yellow. Fruits 0.5-1 cm across,  
opening red. Seeds still immature

5328

Moss on branch

5329

Rust and Lichens on leaves of Epochridion  
(5327)



\* 5330 Bark lichen from Ylo shidian  
(5329)

5331 Shorea m x10 (DNA)  
Tree, 15 m, 45 cm dbh bark reddish, flaking.  
Young twigs red. Lvs light gm. Nut 3 x 2 cm.  
Wings about 8 x 2 cm. Common tree. Butterflies  
2m up 2m up. Wood pink red.

5332 Atocarpus - Maraceae x10 (DNA)  
~~Climber on Shorea~~ (5331) Bark black / Ash  
grey deeply fissured. Twigs red brown w/  
orange lenticels. Lvs light green above and  
below. White latex. Fruit from cut part  
Fruits 4 x 3 cm, green, yellow in x-section

5333 Annonaceae (DNA) x2  
Climber on Shorea (5331). Bark  
dark brown to light grey. Young twigs red  
lv undersides covered in persistent  
undergrowth. Fls 2 cm across. Tepals green, reflexed  
fully. Carpels yellow, orange, covered in  
sticky brown exudate - pollen capture. Anthers  
yellow, bundled to side.

5108E

5334 Rutaceae x4 (DNA)

Climber on Shorea (5331). Bark gray, vertically ridged striate. Younger branches up black, smooth bark. Young shoots and lvs light gm. Fls light green inside fold of corolla like yellow on the outside.

5335 Orchidaceae x4  
Epiphytic on fallen branch. Massimic. Fls white, 3-5 cm long

5336 Orchidaceae x6  
Different species of tiny orchid found beside 5335, epiphytic on fallen branch. Fls white, 1.5 cm. Frs glabrous, 5-7 cm long

5337 Hymenophyllum (?) Fern x1  
Terrestrial fern, v. dark gm w/ dark brown leaf stalks

\*5338 Forchert fragus on rotting log. Black above. Gray below with rusty, slimy patches of brown growth, generally about 4 x 1 cm.

5339

\* brilliant green crusty lichen from species of young Medicago, 1 cm dia.

\* 5340

Leaf lichen from Arizoglyphus disticha  
Rhizophoraceae

\* 5341

Bracket fungi from rotting log.  
Orange, light and dark brown mycel.  
above. Below grey with sub-epidermal  
grey dots

5342 Fern

Lindaea?

X1

Terrestrial fern, 30 cm tall.

5343 Rubiaceae

(DND)

X1

Terrestrial shrub, 50 cm tall. Lvs

dark green above, below roughly hairy.

fls green outside, cream white inside. Top of  
very purple.

5344

Orchid. epiphyte or Diplazium.

Fls 4 cm long, translucent green petals, anthers  
yellow.

5345 Saprophytic orchid x1  
15 cm tall, stem brown. Flower fls buds  
white.

5346 ~~Rubiaceae~~ x5 DNO

Small shrub, 40 cm tall. Bark dark brown.  
Lvs white-green below w/ darker green  
vms. Sepals 5, green. Petals white, reflexed  
between them. Sepals 2, yellow, white  
ones above, style protruding through,  
tornulent white. Pp on slope to white  
creek

\* 5347

Blue green crusty lichen from Yang  
Dacrydium bark. Lichen here seem to  
face SW

\* 5348

Green crusty lichen from n/s Sapindaceae  
bark

5349 Mimosa - 2 Mimosa x6

Shrub, 2 m tall. Bark red-brown, lvs  
leathery, dark above, light below. Fruit  
green, smooth w/ one white seed. Fts  
ramiflorous.

DNA



5350 - PhAo Diospyros DNA X10

Tree, 15m, 40 cm dbh, fluted at base.

Fruits prominently euliflorous toward bottom of stem. Bole warty from euliflorous infl. bases.

Back d. deep black. Stems yellow green, light green below, dark above, 40x15 cm. Fruits 30x15 cm, slightly oblong, calyx lobes persistent, small (1 cm x 5 mm), adpressed to fruit. Segals about 12, 4x1 cm and radiating longitudinally from center. Testas white, flesh translucent cream yellow, embryo white. Fruits seemingly injured at top. Found by small creek at bottom of hollow. Only one seen.

5351 Asplenium X1

Epiphyte on Diospyros

5352 Aplazium X3

Terrestrial fern creek bottom

5353

Leaf lichens on Diospyros (5350)

5354. Fern X4  
Terrestrial fern by creek bottom

5355 1x02 x1 (DNA)  
Shrub, 1m. Lvs light below, dark above.  
Fruit 3x2 cm, ripening red. Seeds two.  
Testa green and brown. ♀

5356 Thesleas x1 (DNA)  
Shrub, 3m. Leaves leathery, bullate, light  
on below. Frt brown, warty green. Ovary  
2-keeled perianth reflexed

5357 Linsey (?) Fern  
Terrestrial fern.

5358  
Terrestrial fungus. Stalk 10 cm,  
fruiting body 6x3, black above, grey  
below.

AS 359 (RIDGE)  
Crusty blue-green lichen from bark of  
young Amorpha, 15 cm dbh

X 5360  
White fungus on leaf litter  
on ridge



\* 5361

White fungus on stem of climber

\* 5362

Terrestrial fungus. Black above  
fritting body, grey below.

\* 5363 ~~Thalictros~~

Terrestrial toadstool. <sup>x3</sup> Neatly yellow stalk,  
8 cm long, tapering from base. Top of  
mushroom orange-yellow. Gills white-yellow.

\* 5364

Bracket fungi on standing rotting (dry) logs.  
Bracket black above w/ 3 mm pink margin,  
pink grey below. Fritting bodies minute, pinkish.

5365 Ekrantaceae

x2

(DNA)

Tree, 6 m, 15 cm dbh. Bark smooth, light  
grey. Leaves stiffly coriaceous, prominently  
thrued. Fls yellow. Frt 10 x 8 cm, green  
brown. Rind 5 mm thick, 1 huge seed.

\* 5366

Bracket fungus on root of tree. 8 x 6 cm  
Above rings of veins brown and white. Under  
surface and stalk white.

\* 5367

Fungus on stem of young sapling, 5 cm  
diam. Also found on creeping  
Eurycoma longifolia.

5368 1 x 0.5 cm Rubiaceae (DNA) X 2  
Shrub to 2 m tall. Bark red-brown, inner  
dark green above, fls orange-scarlet, 8 cm long  
3 across

\* 5369 Leaf blemish from 1 x 0.5 cm (5368)

\* 5370 Fungus X 7

Bracket fungus on large unbranched  
tree. Brown above, chalk white below.  
Numerous to about 3 m from base of 20 m  
tree (Pillenia? Bark red, lamellated).



5371

Corymborkis Orchidaceae X1

(DNA)

Terrestrial orchid, 70cm tall. Frith gm.

RIDGE TR5372 Dacryodes Burseraceae

Tree, 4m, 60cm dbh. Bark dark gray, smooth. Lvs stiffly coriaceous, light gm. Fts 3x1cm, yellow-green. Endosperm inside seed light avocado green.

5373

Bracket fungus on very rotten trunk

5374

Toadstools at base of rotting trunk

5375

Moss growing on buttress of tree, 15m tall, 30cm dbh

5376

Dried fungus on rotting trunk. Fruiting bodies purple, pear shaped, black inside

5377

Bracket fungus on same rotting trunk as 5376. Orange-brown above, white below.

5378

(DNA)

Tree, 4 m. Bark dark gray, smooth.  
Young leaves green, these and morpho midrib  
of leaf midrib surface of white hairs. Fiti  
ripening orange, about 5 mm diam

\* 5379 Fungus on rotting branch. Creeping,  
gray brown with white margin. Grey-brown  
part seems to be the sporophore part.

\* 5380

Brown-tinted creeping fungus on  
rotting branch

\* 5381 Fungus x1  
found on rot along ground. Grey white  
above and stalks, gills below white

\* 5382 Fungus  
small like fungus on rotting twig

\* 5383 Brown-gray shallow lichen on bark  
of Shorea

5384 Macaranga Euphorbiaceae DVA X 3  
Tree, lvs dark gm above, glaucous below. Kt is  
waxy blue green / <sup>st. dm</sup> ~~sparsely~~ green on edges.  
Seeds red - visible when fruit splits. Youngest  
lvs occasionally not trilobed like older ones

5385 Fern X 2  
Epiphytic fern on Meranti (Shorea), found  
on a ridge top.

\* 5386 Moss  
Epiphytic on Shorea

\* 5387 Moss  
Killer from tree

5388 Bulbophyllum X 2  
Epiphytic orchid on Shorea. (1) brk  
whit

5389 Brachy fungus  
\* Fungus on rotting twig. Black above,  
pink. Shm below.

5390 Polypodium Fern  
Epiphytic on Shorea

5391 Mallotus Euphorbiaceae X8  
Tree, bark 10 cm dbh. Bark light-grey,  
wood cream-yellow. Lf undersurface  
of rough in diameter. Fruit 2 cm across,  
pithy, styles 1 cm long. Seeds of  
red-brown testa, white inside. (DNA)

5392 Moss

Growing on Shorea branch

5394 Loxanthaceae X6 (DNA)  
Parasitic climber on branch of Shorea.  
Tendrils light grey w/ red lenticels.  
Lvs leathery green. Fls yellow, fleshy,  
single seeded. Seed light green w/  
white vertical stripes (6 of them).

5395 Asclepiadaceae Papd(?)

Euphyte on Meant. Lvs fleshy + thick,  
light green. Fls in an umbel, semi-transparent  
pink white.

(DNA)

5396 Diospyros Ebenaceae x10

Tree, 8m, 15 cm dbh. Bark black, brittle.

Lvs dark green above, light below. Fruits 5 x 5 cm, calyx persistent. Sepals 3, each bilobed 1/3 up rounded, then lobed and inverted at top. Inside of fruit of yellow-brown sap.

Seeds about 12. Seeds inside semi-translucent. Fruits can be eaten in 1, 2, or 3's

and nuts

5397 Lichen on leaves of Diospyros (5396)

5398 Lichen on bark of Diospyros (5396)

5399<sup>x10</sup> Gymnocarpha - Myristicaceae, <sup>pink</sup> ~~black~~

Tree 15m, 10 cm diam. Reddish exudate from cut parts. Young leaves red-bronze vertically striate. Lvs light green below. Fls yellow-orange, 9 stamens or hairy aroma, sweet, musty, healthy good. (DNA)

5400 Antidesma Euphorbiaceae x3

Shrub, 2m. Bark gray, peeling in faint longitudinal strips. Stipules large, deeply 3 x 2 cm. Lvs light green below. Inflo. to 20 cm long, 4-flored 7 mm long, single seeded.

(DNA)

5401

Boerhaavia fungus in soil

5402 Orchidaceae x1

Epiphytic orchid. Lvs green below,  
red-brown above. Fls 5 mm, white

5403 x1 Orchidaceae ( ) ?

Epiphytic orchid. Infls. light green

5404 Orchidaceae (Tillandsia?)

Epiphytic orchid. Lvs fleshy.  
Petals white, yellow below.

5405 Asclepiadaceae Hoya

Epiphytic. Lvs fleshy. Fls 2 cm umbel,  
yellow-pink



Pl. Jan 27

265m - Cutting block

$0^{\circ}43'22.5''$  /  $112^{\circ}50'37.5''$

5406 Aglaia (DNA) Meliaceae x10

Tree, 15m, 25cm dbh. Bark light grey, lichen  
patched, thin. Inner bark red and green. Wood  
yellow. Young branches brown. Young leaves  
petioles and rns a leaf underside covered with  
red stellate indumentum, lvs light green

5407 Araceae (DNA)

Epiphyte. Leaves 1.5m long. Spadix 20 x 7 cm  
yellow.

\*5408

Lichens from bark of Aglaia (5406)

\*5409 Leaf mites from yg lvs of Dacryodes

5410 Malloms - Euphorbiaceae x6 (DNA)

Tree, 5m tall, 10cm dbh. Bark light grey,  
smooth, thin, inner bark red brown. Wood  
yellow-brown. Lvs clustered at wing  
apices in pinnate panicles, light green & glauc.



Frts 3cm across, spring. One seed per  
locule. Teste light green, seeds white

5411

Epiphytic fern on Mallotus

\*5412 Brown crusty lichen on Annonaceae bark

5413 Epiphytic fern from Mallotus

5414 Mosses on buttress of Shorea \*  
↓ LV A hollow above stream!!!

5415 Lichen community from upper  
canopy branches of Shorea (bark)

5416 Orchidaceae X1

Epiphyte from upper canopy branch of Shorea  
Lvs succulent, warty, dark green and red.  
Fl. buds blood red, fls red-white

5417 Orchidaceae X1

Epiphytic from upper canopy branch of Shorea  
Lvs light green, succulent. Fls succulent,  
green, with red in throat

5418 Orchidaceae

x2

Epiphytic from upper canopy branch of Shorea.  
Lvs light gm, succulent. In fls. basal,  
buds white.

\*5419 Moss

Epiphyte from upper canopy branch of  
Dipterocarpus

5420 Hernandia (DNA) Melastomataceae x8

Tree, 5m. Bark light gray, thin, smooth. Twig bark  
light red brown. Lvs very light gm, below. Frs  
1cm across, light gm w/ persistent style. Surface  
warted. Style persistent x-section: 4-lobed,  
each lobe w/ numerous small seeds

529

~~5420~~ Orchidaceae

x8

Epiphyte on Shorea. Stem and lvs green,  
Infls terminal, fruits gm, 4cm long

5421 Fern

(DNA)

x6

Epiphyte on Shorea

5422 Fern

x2

Epiphyte on Shorea

5423 Begonia Begoniaceae X5 (DNA)  
Terrestrial Herb. 20 cm tall. Lvs dark gm  
above w prominent red leaf spine, 21 below  
w adpressed indumentum on midrib and 20 vns  
Petals white, pink above

5424 Melastomaceae (DNA) X5  
Shrub, 1 1/2 m tall. Bark w scurfy, grey brown  
indumentum. Calyx tube reddish below,  
gm above. Petals white; filaments green.

5425 Rubiaceae X5 (DNA)  
Shrub, 50 cm. Bark gm w old  
brown indumentum. Lvs axillary, 4 cm long.  
Open fl. terminal, white, corolla lobes reflexed  
30°.

\* 5426 White fungus on fern frond

\* 5427 <sup>Trondstad</sup> fungus on climber. Black, red  
above fruiting body, pink white below

\* 5428 <sup>acellamine</sup> Trondstad on petioles of rosette  
leaves of Shorea

5429 Monarda Rubiaceae x 1 DNA

Tree, 4m, 10cm dbh. Bark grey-brown (light smooth, thin. Inner bark brown, thin. Wood yellow. Leaves light gr. Fruits dark green, compound. Individual fr. w/ one seed. Seeds semi-translucent white in x-section.

5430 Apocynum Euphorbiaceae DNA x 8

Tree, 3m. Bark darkish gray. Lvs small, 10 x 5 cm. Fruits ramiflorous, red. Seeds w/ orange test. Embryo light gr in white hard flesh.

\* 5431 Bracket fungus. Bran and white ringed above brown-grey below. Found on fallen rotten log.

SLAVE ↓ ↓ ↓

\* 5432 Toadstool growing on bole of Living Shorea (Mgt). Stalks up to 2 cm long, holed so that cap faces upward. Cap dull yellow brown above, orange below.

5433 Goniathalamus Annonaceae x 10 DNA

Tree, 15 m 25 cm dbh. Bark grey-black, smooth, odor from slash strongly oily-aromatic. Lvs dark grn above, light below w/ red midrib.

Trigs red-bram w/ green lenticels  
Lower sepal whorl green, upper yellow  
golden

\*5434 Leaf lichen from Goniathalamus  
(5433)

5435 Samanea Samanieaceae X1  
Shrub, 1.5m. Bark grey-green, smooth.  
Fls just about soil. Calyx, corolla, pedicels  
5 cm long. Sepals green hairy. Carpel  
3, green, smooth. Styles persistent. Scales  
like hairs on midrib and on above and  
below leaf. (DNA)

5436 Piperaceae (DNA) X2  
Climber on Ipomoea grandistipulate.  
All parts light gm. Infl. 3 x 1 cm, stigmatic  
remnant brown

5437 Melastomataceae X2  
Herb. 20 cm tall. Infl. rachis light matte  
scarlet red. Calyx tubes gm.

5438 Rubiaceae (DNA) x1

Shrub, 60 cm. Stem green and brown. Lvs  
light green, smooth. Fruits in a terminal  
head surrounded by numerous bracts

5439 /cacinaceae? x5 (DNA)

Shrub, 1 m tall. Bark light gray brown.  
Lvs light green, thinly leathery, smooth.  
Fls white. Stamens numerous, ? lobed

5440 Rubiaceae x1 (DNA)

Shrub, 1 m. Bark light gray-green.  
Fruits light pink, green above.

5441 Orchidaceae x1

Epiphytic orchid

5442 Syzygium Myrtaceae x8 (DNA)

Shrub/small tree, 7 m. Bark light gray,  
thinly vertically striate. Wood yellow. Lvs  
dark green above, light below & white green  
of thence, seeming with 2 calyx remains !!!,  
Waxy white, 1.5 cm diam. Seed 1, semitrans-  
lucent white.



5443 Lawsonia Litsea <sup>(DNA)</sup> X 3  
Small tree, bark red-brown, vertically  
striate. Lvs. dark green above, glaucous  
white below. Frt. fleshy cream-green,  
seed red, white in transparent white semi-flesh  
- "jelly" - aromatic smell.

\* 5444 Leaf lichen from Litsea (5443)

5445 Dacryodes Burseraceae X 5  
<sup>(DNA)</sup>

Tree, 5m. Bark grey-green, smooth, inner  
bark green, wood yellow. Fruits opening  
light red, 3x1 cm, endosperm light  
brown. [5 cm dbh].

\* 5446 Baccharis fungus from rotting log  
✓ WET CHILLI STANT ↓

5447 Zingiberaceae X 3  
Lvs 50 cm long. Inflr 10x6 cm, whitish  
Fls white, 3 cm long, stamens 2, gm.

5448 Androstium? Fern X 3  
Epiphytic fern, 2 m from ground on  
tree in swampy area.



Bract

- \* 5449 ~~Lead stalk~~ on rotting branch  
in swampy area. Fingers folds in on itself,  
brown above, ~~brown~~ white below, some on  
black stalks

- \* 5450 Bracket fungus encircling rotten  
twig. Orange-brown above, pink-orange  
below

- 5451 Euphorbiaceae DNA X4  
Shrub, 2m. Bark light grey. Frt 3x2 cm, light  
orange, fleshy. Frt 3-lobed, no white seed  
per lobe.

- \* 5452 "Ore" shaped fungus on rotting wood.  
Black white thin and 2mm thick and sticky  
black on the inside, rest of x-section  
white.

- 5453 Annonaceae DNA X2  
Growing at bottom of gully in swampy area.  
Tree, 15m, 35 cm dbh. Bark grey-brown-black  
(dark). Fruits to about 8 cm diam, each  
w/ one seed. Kind of fruit 5mm, yellow  
"flesh" toward centre. Fruit caniferous

5454 Lichored leaves from Annonaceae  
(5453)

5455 Antidesma Euphorbiaceae X3  
(DNA)

Tree, 3m. Bark grey, vertically fissured.  
Leaves very large, to about 40 x 20 cm.  
Inflo. to about 25 cm long. Fruit very  
light scarlet, flattened, 3 x 1 cm

5456

X Lichored lvs of Antidesma (5455)

5457 Gnidithalamus Annonaceae X1

Still in the bag. Tree, 3m. Fruit 5 x 1 cm,  
clawed, glaucous. Bark dark gray-brown, lvs  
thinly coriaceous, light green

X 5458 Moss

Growing on leaflets of a Legume  
(Soracca?)

5459 Sauvignia Sauvignaceae X3

Still in bag. Tree, 2m, bark light grey-  
brown. Inflo. cantharous, fls red below, white  
above

5460 Pandanaceae x1

Epiphyte 1.5m from ground on small tree in boggy area. Also found @ 4m tall working up a big tree

5461 Diospyros Ebenaceae x1

[Box] still...

Tree, 3m, bark dark black. Lvs dark abn, light lw. Frt 1, 4x3 cm, dull gm.  
150m from start of bog to a river stream

5462 Gesneriaceae x2

Epiphyte in boggy area. Calyx deep crimson, corolla red w/ black stripes. Leaves light green, fleshy

5463 *D. saurau*? x6

Tree, 3m. Twigs gray-green. Fls, young twigs and vms above and below leaves w/ scaly hairs fls axillary. Calyx green. Petals white. Stamen & anthers yellow. Styles white.

5464 Psychotria Rubiaceae (DNA) x6

Tree, 3m, slender. Bark smooth, brown. Frts 1 x 0.75 cm, dark green w/ vertical light green stripes

5465

Lichens and leaves of Psychotria (5464)

5466 Urophyllum Rubiaceae (DNA) x 6  
by stream-side. Tree 5m. Bark chocolate brown-  
black. Young twigs scurfy hairy. Frts green,  
smooth. Lich small, numerous. Lichs and mosses  
numerous on tree

5467

Lichens and moss on leaves of Chrysothamnus (5466)

5468 Piperaceae (DNA) x 5  
Climber on Urophyllum. Young stems white-hairy.  
Inflo to about 15 cm, brick-red color

5469 Zingiberaceae x 1  
Herb 1m tall. Yg lvs red. Inf. red,  
8x4 cm. Frs white-pink, 3x4 cm

5470 Elaeocarpaceae (DNA) x 6  
Gynodioecious tree

Tree, 10m, 10cm dbh. Bark dark red  
brown. Wood yellowish-brown. Inflo. to 15cm  
long. Bracts 3 winged, red, 15x5 cm.  
Seeds flattened, pitted longitudinally  
in wings of fruit.

5471 Ochroleaceae

x1

Bulbophyllum - Euphyllia or Cobarroneae  
(5470). Fls 5 x 3 cm, yellow w/ red dots  
[PHOTO] [LIVING COLLECTION] (Can't press  
this one....)

5472 Ficus Moraceae

x5

Tree, 10m, 15cm dbh. Bark darkish gray  
White latex from cut parts. Fruit catkins  
in clumps of about 10, inflorescence on 7 cm  
stalks, basin 3 cm diam. Fruits brown. Growing  
on river bank (265m)

x5473 Leaf lickers for Ficus (5472)

5474 Unknown

x7

Clusia or Ficus. Leaves leathery, stringy  
"latex" as broken halves are pulled away  
fls red, catkins, with gynophore. Fives bark.

x5475

Dense moss and lichen flora on leaves  
of 5474

x1

5476 Cyperaceae. By river. Thick  
herb, 70cm tall, inflo. from base. By river  
bank

5477

"Filamentous yellow orange fungus on a rotting root.

5478 Euphorbiaceae

Shrub, 3 m. Bark light grey. Frts 2 cm diam., light dull gm, splitting into three. Each carpel w/ one dark brown-grey seed. Leaves heavily covered w/ moss and lichen.

5479 Spring mosses from Euphorbiaceae (5478)

5480

Moss - sporing on herb

5481 Gloriosa - Zingiberaceae

Herb, 40 cm. Stems red-brown (dark). Lvs dark green. Infls red. Fls orange 6 cm long. X 2

5482 Delicate white ~~foam~~ stalks on rotting wood. Stalks red-brown, 6 cm. Caps ~~dark~~ semi-transparent cream-white, 6 cm across. Cyls white below surrounded by small flies.



5483

Chestnut brown to a little on rotting wood, brown white below. Fruit upward at first and reflexing out as they age.

✓ [ SLOPE ] ✓

5484 Connaarceae - Elaphium (?) X 7

Small tree, 5m. Bark black, vertically striate.

Fruit occurring singly on branch, green, globose, 2 cm diam. 3 seeds, semi-transparent white, black aril cover most fruit. (DNA)

5485 Meliosma Schizaceae (DNA) X 10

Tree, 8m, 15 cm dbh. Bark light grey-brown thin, with sparse orange lenticels. Wood light yellow-brown. Fls small, yellow. Fruit 3 x 2 cm, green. Fleshy to 5 mm. Flesh reddish on exposure. Seed 3-angled, 1.5 cm, green, hard. Endosperm bright chalk white.

✓ [ RIGID ] ✓

5486 Moss from buttresses of large Shorea, 3 m dbh

5487 Areaceae? (DNA) X 2

Slender up Annonaceae - (Polka thinn)?

Stem 1 cm dbh, bark grey. Lvs dark gm, cradial terminal and serrated by branch young, lvs. ad, but older appears to have been white.



\*5488 Small toadstools on log. Stamen 3 cm,  
blue, carp bright white

\*5489 *Brachyphyllum* growing log  
by stream. Bark black stem brown

5490 Fern - *Diplazium*  
Terrestrial fern by stream.

5491 - *Melastomataceae* X1  
Herb, 10 cm tall. Stem red, calyx tube  
gm. ALTERNATE LEAVES  
and of red in inflorescence.

⊙ ↙ RIVER BANK ↘ ⊙

5492 *Sandera* *religiosa* X1  
Tree 3 m slender. Bark light grey-grey  
smooth. Lvs light gm. Fruits are  
red, 7 x 5 cm

5493 *Rubiaceae* (lower part) X10  
Tree, weeping slightly 5 m. Bark light  
grey, smooth. Lvs light gm above  
light and hairy below. Fls 4 cm, white. Fruit  
green, 0.5 cm diam, single seeded

①

→ Slope →

②

5494 Orchidaceae x1  
Terrestrial orchid, 40 cm high, lvs  
and bracts stem dark green, fls  
yellow w/ red streaks.

5495 Bracket fungus on rotting  
wood, pore white.

5496 Fern  
Terrestrial fern - Diplazium?

5497 Orchid  
Epiphytic orchid on Shorea. Fls  
5 x 2 cm, pale yellow, green.

5498 Fern x4  
Epiphytic fern on Shorea Polytaenium?

5499 G/100c Zingiberaceae x5  
Terrestrial herb, 40 cm tall. Lvs purple below,  
green above (Aak). Stems purple. Infl. red  
Flwr orange 1 cm long.

① → Looking for more → ②

5500 Fern Asplenium x2  
Epiphytic fern on Mahoe tree.

5501

Tree, 4 m. Dying and in cutting block  
Bark grey, smooth. Corolla green-red. Calyx  
lobes persistent, red

5502 ~~Brachyotum~~ toadstools.

Pink-brown on top, white below

5502 Gesneriaceae X3

Epiphyte Leaves succulent Calyx & corolla  
red. corolla red, fruit 5 grn, 2.5 cm x 0.5 cm

5504 Labiate/Ace

X1

Herb. Fls purple, Lvs dark green above  
N short leafy green whitish below.

5505 Pinanga Araceae X1

Abrasive, 0.5 m high. Berries white.

5506 Orchidaceae

X1

Epiphytic orchid - fls purple white

28 JAN 1995

220m Beside river - inside - check on map

0° 44' 23.6" / 112° 50' 47.4" → RIVER  
CENTRE

5507 Melastomataceae X 3 (DNA)

Climber on Shorea. Bark dark brown.

Young lvs purple red, maturing light green.  
Pedicels red-brown, 5 cm long. Calyx tube bright  
red. Petals 4, purple. Stamens 8, anthers yellow.

FALL IN RIVER ..

5508 Meliaceae Tecoma? X 10

Tree, 15m, 45 cm dbh. Buttressed 0.5m up, 1m out

Outer bark orange-brown, surface flaking

Inner bark red, wood yellow. Leaves glabrous

red-haired underneath. Fls 1.5 cm, petals 3,  
white, anthers 2(?), yellow. (DNA)

5509. Staphan (DNA) X 1

Small tree, 3m. Leaves thickly coriaceous

fruits 2 cm diam all are white seeds.

Bark light grey

Malayan

DNA

5510 Lepisanthium Sapotaceae x10

Tree, 8m, 10cm dbh. Bark red brown, smooth, thin. Wood cream colored. Lflets and leaf rachis covered in scales - INDIVIDUAL LEAFLETS STRONGLY RESEMBLE LVS OF

ONE AN. Inflo axillary toward end of branch. Rachis and buds also covered in scales. ETiny bark golden-brown.

5511 Ficus Moraceae DNA x8

Climber. Bark light gray, strongly lichen pitted. Lvs dark gm above w/ yellow mottled and vms, light green below. Synicoria 5x3cm rust-orange w/ gm flecks and stiff cream-yellow hairs, about 5mm long. Fruits brown. All cut parts exuding white latex.

5512

\* Lichen off branch of Fraxinaceae (5508)  
✓ FLAT AREA BY RIVER - UT

5513 Ikora Rubiaceae DNA x3

Small tree, 3m Bark red brown. Fb still gm

5514 Fern (Nephrodium?) x3  
Epiphyte on large Sikora

\* 5515 Blue green thallus Lichen of  
major branch of Shorea

5516 ~~Ep~~ Fern X2  
Epiphytic fern of major branch of Shorea.

X 5517 Bracket fungus of large vine

5518 Gesneriaceae X1  
Epiphyte on Shorea. Leaves fleshy, dark  
green above, light blue. Fl. buds lilac,  
dark red.

5519 Fern X4  
Epiphytic fern on large branch of Shorea

5520 Schefflera Araliaceae X2  
Climber on Shorea. Infl. rachis red-purple. Frith  
bracts orange-yellow, red-purple at apex w/ 5  
distinct style scars. Seeds 5 creamy yellow color.  
DNA

5521 Medinilla Melastomaceae X4  
Climber. Bark light grey-brown. Lvs dark  
above, light below. Fl. buds crimson-red.

(D  
W  
A)



5522 Microphora? Annonaceae x8  
Tree, 6m, 10cm. Bark black, Lvs light  
green with reddish illumination on midrib and  
veins on abaxial surface. Fts 2 cm diam, green  
w/ white fls. Seeds thin aromatic white from  
flesh. DNA

~~5523 Uncaria x1  
Tree, 2m, 10cm. Bark brown, Lvs glossy  
green, venation almost invisible. Fts 1.~~

5524 Orchidaceae - Coelogyne x1  
Epiphyte on large Shorea. Flowers 4x1 cm, white  
yellowish inside, odor sweet, fragrant, honey-like.

5525 Analiaceae Schefflera x1  
Shrub. Fruits yellow, 1/10. rachis with brown-  
gray indumentum. DNA

5526 Leea Vitaceae x1  
Small tree 10ft. rachis red-green. Fls about  
1x1 cm. Calyx like green, corolla yellow, anthers  
brown grey

5527 Leaf specimen from Leea (5526)



→ (DNA)  
5530 Diospyros Ebenaceae X 12

Tree, 15m, 35cm dbh. Bark light <sup>brown</sup> tan hard, fissures.  
Lvs leathery and soft. [Wood cream yellow], Fruit  
10 x 8 cm. Calyx lobes very accrescent, 4 cm  
long, graying and perpendicular to peduncle,  
then arching up 90°. Frt dull orange-brown  
Seeds nine in the fruit spaced, seeds translucent  
white. Frt exuding sticky colorless exudate.

[Calyx and in fl. of green/gold/blood red indumentum]

[Bark with numerous <sup>Bark white</sup> cm horizontal lenticels]

\*5531 Lichens from lvs of Diospyros (5530)  
(clusters)

\*5532 Lichens from bark of Diospyros (5530)

5533 Myristicaceae Knema (DNA)

Tree, 10m, 25cm dbh. Bark light brown,  
smooth, cracking vertically occasionally. Cut  
piths exuding red sap. Young branches and underside of  
yng lvs with thick light brown indumentum. Lvs light green above, glaucous  
blue. Frts 7 x 3 cm, ylu with thick brown indumentum. Ail pinkish red,  
entire Seed 5 x 2 cm. Testa purple-black w/ ylu skin  
Endosperm white/light brown minutate. All (petals) <sup>red waxy</sup> capitate

5534 Fern (Miclasorum?)

X1

Epiphyte. On upper surface are marked by  
large and abrupt "bumps".

5535 Labriateae (DNA) x8  
Terrestrial herb, 20cm tall. Fls white w/ a  
slight purple tinge. Lobellum w/ light green  
protrusion on each side of middle. Anthers white.

5536 Lichens off lvs of Koene (5533) / Rusty web

5537 Bark lichens off Koene (5533)

5538 Urticaceae (Elatostema?) x5  
Terrestrial herb, 20cm. Inflorescence  
fleshy, pink-green. Fls tiny, pink w/  
purple flecks

5539 Euphorbiaceae (DNA) x4  
Tree, 3m. Bark thin, light brown grey. Lvs  
light green, distichous. Fruits bunched, each  
lobe w/ one gm seed. Frt dark green.  
②      SLOPE      ②

5540 Vitaceae x2  
Climber. Yg leaves gm purple below. Yg  
stems fleshy, berries bright red. Seed 1,  
gm

5541 Tradescantia  
Delicate seed stalks on cutting tray. Stalks reddish under




cap light dusty brown, cap top orange-brown.


5542 Filamentous white fungal stools, small,  
on a log in an advanced state of decay.

5543 *Bocconia* *Euphorbiaceae* <sup>(DNA)</sup> X2  
Tree, 3m. Bark thin, light grey, smooth.  
Lvs clusters at branch tips. Fruits <sup>calyciferous</sup> globose/  
flobose, 2 cm diam, globose seeds 2-3, testa  
bright orange [Fruits yellow-orange] 255m

5544 *Rubiaceae* <sup>(DNA)</sup> X4  
Tree, 7m, 10 cm dbh. Bark thin, light brown.  
Lvs light green w/ yellowish midrib and  
2° ms. Frts dark green, globose 1 cm across,  
1-seeded. [Wood yellow]

5545 *Antidesma* - *Euphorbiaceae* X1 <sup>(DNA)</sup>  
Tree, 7m, 20 cm dbh. Bark dark brown  
inner bark reddish wood red-brown, hard  
Lvs v. light green, dark above. 1-fl. stiff  
red and green. Fls ~~red~~ small, calyx dark red

1997  RIDGE    
5546 *Aporosa* *Euphorbiaceae* X8 <sup>(DNA)</sup>  
Shrub, 4m. Bark light brown, slightly hairy and  
occasionally vertically fissured. Stipules

about 8x4 m, caducous on older twigs. Berries  
 light milky scarlet, 1x0.5 cm, 4 remnants of  
 persistent visible above (black), seed case, later  
 orange, (raphide?), real  Embryo 4 angled,  
 flattening dorsally then later.

5547 Ardisia Myrsinaceae X5 (DNA)  
 Tree, 5 m, bark light brown-grey & slender.  
 Young twigs and midribs and veins on lamina  
 abaxial surface dark rust red color. Berries  
 globose, 7 mm diam, dull green w/ red-brown  
 longitudinal flecks

~~5548 Lichen from tree of Ardisia (5547)~~

5548 Pandanus Pandanaceae X1

\* 5549 Lichen from tree of Ardisia (5547)

\* 5550 Yellow jointed stalks on a thin branch. Caps  
 1.5 cm across, rippled.

5551 Iridescent light green lichen on  
 bark of tree, 30 cm dbh

5552 Dillenia Dilleniaceae X13

Tree, 10m, 25cm dbh. Bark covered w/  
gm lichen, reddish below. Inner bark red, laminated.  
Wood yellow-brown. Young parts w/ caducous  
white indumentum. Fls 8 cm across. Petals  
bright yellow. Anthers white coming out in bundles.  
# carpels generally five, but some with bygone.  
Sepals green. (DNA)

5553 - Lichenred bark of Dillenia (5552)

5554 - Lichenred and rusted lvs of Dillenia (5552)

5555 - Artocarpus Moraceae X4

Tree, 8m, 20cm dbh. Bark darkish brown and gray.  
Twigs and petioles covered in dense brown indumentum,  
hairs almost 1 cm long. Fruits 7 cm diam, yellow.  
Lvs dark abv w/ ylw midrib and 2 veins, light green  
below, veins also ylw. (INNER BARK RED) (DNA)

5556 Lichenred and rusted lvs of Artocarpus  
(5555)

5557 Various lichens on bark on Artocarpus  
(5555)



5558 Vitaceae x1  
Climber. Midrib and vms on both sides of leaf, and petiole, with red-brown tomentum. Lvs otherwise dark gm above, glaucous below. Infl. rachis M) same tomentum, buds gm.

5559 Gonythrus Thymelaeaceae x10 (PND)  
Tree, 15m ~~30~~ cm dbh. Bark dark brown, orange flaking. Lvs, inflo and yg twigs light green. Frts to ~~10~~ 10 x 3 cm, warty brown. Seeds white. Yg buds and old frts going into 2nd season? Cylindrical bark red, wood white.

5560 Euphorbiaceae (DNA) x 80  
Tree, 8m, 15 cm dbh. Bark light - dark grey, wood light yellow brown, twigs white. Lvs dark green tomentum. Frts gm, 2 cm diam, 3 seeded.

5561 Blue thallus lichen for Euphorbiaceae (5560) twigs.

\* → 5586 ← \*

\* 5586 Bracted fungus. Reddish gold  
brown above, dull yellow below.  
On rotting wood

\* 5562 Bracted fungus on rotting wood  
Red, brown and white ringed above,  
white blw.

\* 5563 Bracted fungus on rotting wood.  
Stalks to 5 cm, red-brown. Top of  
fungus black and red ringed, below  
white w/ purple tinged areas

5564 Euphorbiaceae - Arumsa? XB

Tree, 8m, 15 cm dbh. Bark light gray  
+ thin. Young lvs flush red-purple.

(DATA)

Fruits x 0.5 cm, ripening reddish 3 seeds  
per fruit. In cross section one white, the other  
translucent green.

5565 Lichen from lvs of Euphorbiaceae  
(5564) [AND RUSTS]



5566 *Occhudaceae* X 2  
Epiphytic orchid. Fls pale orange, 1 cm long

5567 *Rubiaceae* X 2  
Climber. Bark brown, lvs dark gm above.  
Frts dark gm, ~~1~~ 1 x 0.5 cm. Seed 1.

← RIDGE TOP →

5568 *Malvaceae Ochrostachys menteniana* 12  
Tree, 15 m, 40 cm dbh. Bark red-brown  
flaking - flakes 1-8 x 8 cm. Wood light  
brown, hard. First branch 10 m, 1/2 way trunks  
light red. Leaves delicate, glossy green. Fruits  
~~large~~ drop shaped to globose and  
sub-globose, to 1 cm across, 1-seeded,  
exuding white latex in X-section, great  
various L fruit shape. (DNA)

5569 Just and lichen a leaves of  
*Ochrostachys* (5568)

5570 Lichen on bark of *Ochrostachys*,  
(5568)

② → RIVER SIDE → ②

5571 Syzygium Myrtaceae (DNA)

Ureping over edge of river. Tree, 10m, 35cm girth. Bark light brown-gray. Yglvs flushed red. Fls from a distance appear as white cluster, with numerous butterfly flies

Swarming around them calyx tube green, 1.5cm long. Calyx lobes 6 petals caducous. Filaments numerous, cream colored, anthers yellow.

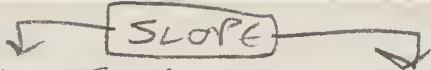
\* 5572 Aporosa? Euphorbiaceae x3

Shrub, 3m, light gray bark, striate. Inflo up 28cm long. Fruit dark blood red w/ 5 persistent sepals five locules in fruit with between 2 and 4 abating & three out open


x 5573 Leaf lichen from Aporosa (5572)

x 5574 Leaf lichen from Syzygium (5571)  
Gard mts

\* 5575 Bark moss and lichen from Syzygium (5571)



5576 Sapotaceae x3 (DNA)

Tree, 7m, 10cm dbh. Bark light brown, thick sap from all cut parts. Branching pattern . Young lvs flesh light red. Fruits green, 3 cm diam.

5577 Leaf ~~from~~ 11 clens and nuts from Sapotaceae (5576)

5578 Fern (DNA) x1

Terrestrial fern



5579 Diabanga ~~Mala~~ <sup>Malayana</sup> Samadiceae x2

Tree 10m, 10cm dbh. Bark dark brown going orange with lvs. Lvs 25 cm. Frts capsule splitting into 4. Common by river side (DNA)

5580 Gesneriaceae

Epiphyte. ~~Fls~~ Calyx scarlet red, corolla light red.

5581 Ficus x1

Climber. Bark gray. Spines orange, < 1 cm diam., globose.

5582 Anacardiaceae Schefflera x1

Climber, bark brown. Fls green-brown, stamens in kind white.

5583 Orchidaceae X1

Epiphytic on Tastonia Jintan. Fr.

purple, 10 cm long. No smell. Living collection

5584 Annonaceae X1

Found in pile of cut trees. Outer whorl yellow, inner purple, melting into flr.

5585 Annonaceae X1

Tree 5 m. Bark thin, light grey flr. deep crimson. Frts 1-seeded w brown streaks within.

5586 - ~~Reptace~~ ~~detected 556+~~

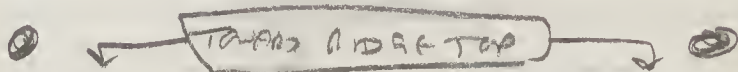
Bracket fungus. Pinkish golden brown above, dull dirty yellow below. On rotting wood.

Sunday Jan 29 1995

End of cutting block. Still hilly area....

270 m

0° 43' 05.2"  
112° 50' 37.3"



5587 Syzygium Myrtaceae (DNA)

Tree, 20m, 40cm dbh. Bark red-brown, vertically fissured, heavily lichen patched. Yg lvs. bluish green. Inflo. terminal. Fruits on 1cm peduncles, fruits subglobose, 1cm long, white, no seed coat.

5588 Ficus Moraceae xB - (DNA)

Climber. Bark dark brown ~~Stipules~~ Branch persistent inflorescence, 8cm long Syncaria sessile sub-globose, 2cm diam, green and orange w/ white flecks. Fruits white and brown thin. All parts exuding copious white latex.

5589 Dacryodes Burseraceae (DNA) xB

Tree, 20m tall. Bark smokyish brown-grey.

Twig bark light grey. Inflo. rachis green. Fruits ripening red. Seed are. Embryo small.

x5590 Leaf lichen from Syzygium (5587)

x5591 Bark lichens from Syzygium (5589)

⑤ ↓ RIDGE TOP ⑤  
5592 Shorea Dipterocarpaceae X10 mm

Tree, 30m 50cm diam. Bark light grey, deeply vertically fissured. Inner bark red, thick, fibrous. Wood pink-yellow. Lvs. dark abv, light below. Calyx + wing + fruit crimson red. Buttresses short, 40cm up, 60cm at. [TACT ON RIDGE TOP] DNA

5593 Fern X2  
Epiphytic fern on large Shorea

5594 Syzygium Myrtaceae DNA x4  
Tree 20m, 40cm dbh. Bark red-bronze, flaking. Inner bark deep red, wood yellow. Young twig's deep red. Lvs. leathery. Fruit light green, 5x3 cm. Seed yellow. Testa yellowish dark flake, adherent to seed.

x5595 bark lichens from Syzygia (5594)

x5596 leaf lichen from Syzygium (5594)  
barely visible



5597 Gardenia Clusiaceae (DND) x 4  
Tree 10m, 12cm dbh, bark dark grey, flaking.  
Yellow sap from slash. Wood cream. Lvs shiny,  
green-bronze striped. Yg sheath green. Fts 4.5 cm  
diam, 4 seeds, yellow in gm flesh.

5598 Mesua Clusiaceae (DND) x ~~8~~ 8  
Tree 10m, 15 cm diam. Bark light grey, slightly  
fissured, wood white-cream. Lvs stiffly  
coriaceous. Fruits to 5 cm diam, ped buff-brown,  
flaking. Exuding yellow sap which hardens. Mesocarp  
5-8 mm thick, slightly spongy, exuding yellow sap.  
Testa white, thick. Seed green. Common tree in  
area.

5599 Medinilla Melastomataceae XI (DND)  
Climber on Shorea. Petals white, anthers purple  
and white. Fts green w/ orange calyx remnants.  
Seed narrow 3x1mm, white. Bark flaking, smooth  
light red-brown. Yg lvs flaking slightly purple.

5600 Ararusa Euphorbiaceae XI  
Tree, 1.8m. Bark smooth grey-brown. Fls  
staring to fruit, 4 cm long, milk purple. Sepals  
above 5 - lvs dark green, slightly bullate.



5601 Fern DNA x5  
Epiphytic fern on large vine on large tree

5602 Moss  
Growing and growing on bole of large  
tree (sample small)

5603 Hopew? Bapt x10

Tree, 20m 15cm dbh. Bark light gray smooth,  
v. lichen patching. Young bark red. Lvs  
stiffy carinate

5604 Moss on rotting log

5605 Myrsine (Myrsine?) x2

Small tree, 5m, 8cm dbh. Bark light  
gray, smooth thin, wood yellow. Lvs light  
green. Fruit gl. dense, 2-3 cm diameter,  
dark green.

5606 SLATE bole of large unknown tree

~~5607 Bark on rotting  
stand~~

\* 5607 Bracket fungus on standing rotten  
bark on dead 45 cm diam. Dark brown  
odor

\* 5608 Bracket fungi from fallen  
rotten log

\* 5609 Black creeping mold like  
bracket fungus on fallen rotting log.

\* 5610 White 'creeping' fungus on inside of  
standing rotten trunk

5611 Theaceae - PNA X10  
Tree, 20m, 45 cm dbh. Shrub at base  
Bark dark red. Brown flaking in small patches  
Inner bark deep red. Wood yellow-brown  
Leaves dark green above, lighter below, leathery  
30 ms invisible. Gland dots prominent to eye.  
Frt 5.5 x 3 cm. Warty buff-brown. Calyx lobes  
green, persistent. See semi-translucent white in  
white part. Frt wall 5-10 mm thick, slightly  
spongy.

\*5612 Bark lichens from Thesaea (5611)

\*5613 Leaf lichens from Thesaea (5611)

\*5614 Bracket fungus from bole of  
large Shorea (120 cm dbh), 1.5 m from  
ground).

5615 ~~Syzygium~~ Syzygium Myrtaceae x1  
Shrub, 1.5 m. Lower part of dark gray bark,  
upper part light chocolate-brown. Lvs  
dark above, light below. Fr. clustered,  
pale blue-green, 1-5 cm diam, subglobose.  
Fruits accrescent? They seem to be 1.  
flesh <sup>semi</sup> translucent white.

\*5616 Orange bracket fungus on a vine

\*5617 Leaf lichens on a palm, 20 cm  
from ground

\*5618 Pinki-orange bracket fungus on  
a vine, in soil and on other plants  
near 2 m 2

5619 Schefflera Rubiaceae x2  
Climber on Shorea. Bark light gray brown, l.fls.  
rachis red, flowers yellow, stamens white.

5620 Orchidaceae x1  
Epiphyte on small shrub

Blk River

5621 Kranea Myristicaceae x4  
Small, 5m. Bark brown. Red sap from  
cut parts. Fls small, brown. On river bank

(DNA)

\*5622 ~~Lvs from~~ Lichens from lvs of  
Kranea (5621)

5623 Unknown x4  
Small tree, 5m. Bark chocolate brown.  
Fls yellow-green (DNA)

\*5624  
Lichen from twig of small tree (5623).  
2 Unit fungus on leaf. Fucose white, stalks 5-10mm  
long. Sporing body 3m diameter, spherical  
5625

5626 Epiphytic fern on log

5627 Melastomataceae

Terrestrial herb, 20 cm high. Stems brown.  
Calyx tubes light green. Other fl. parts  
white.

FLAT AREA BESIDE RIVER  
DIOECARPIUS common

X 5628 Bracket fungus on rotting log. White w/  
purple tinge above and spring, black below.

5629 (Chionanthus?) Oleaceae X1  
Small shrub, 0.5 m. Bark light gray, lvs  
leathery, 5° in visible. Fl buds light  
gm

5630 Heavily lichenized fungus small  
\* shrub by river bank - many diff. forms.

\* 5631

~~Rough~~ Scarlet toadstools on rotting  
leaf litter. Caps 1 cm across

\* 5632

White bracket fungus on rotting branch  
Fungus in sheath on branch

\* 5633 Brown fan shaped fungus on rotting  
log. Up to 15 cm across, above chestnut  
brown above, white below

5634 Garcinia Clusiaceae X2  
Small tree, 3 m. Bark smooth, very dark red-brown.  
Lvs thickly leathery. Frt 1.5 cm diam., light  
glossy shiny green-white (DNA)

\* 5635 Leaf lichen from Garcinia (5634)

5636 Diospyros Ebenaceae X10  
Tree, 20m, 40cm dbh. Buttresses small,  
30cm up 40cm out. Bark black, flaking,  
hard. Wood a distinct golden yellow.  
Lvs light gr below. Frts to about 8 cm diam.,  
Seeds 6 generally around 12. (DNA)

5677 Leaf lichen and rush from  
Diospyros (5636)

\* 5639 - Weird saprophyte covers ~~ash~~ area of  
about 3m<sup>2</sup> - found occasionally in that area. Top of  
to 40 cm green red. Fls white. Petioles (?) fls red  
- ~~check~~ UNDER microscope !!



5640 (Genocaryum?) / Coccoloba x2

Small tree, 3m. Bark grey, smooth. Frn  
caniferous, purple-bronze, 6-8 cm long, ribbed.  
One bundle of numerous white seeds  
clumped together. (DNA)

5641 Sapotaceae x4

Tree, 6m, 10cm dbh. Bark red-bronze,  
dull, smooth. Wood reddish, cut path  
exuding white sap. Lvs dark green above,  
golden brown below. Fruit 4x2 cm, styles  
generally persistent, seeds 1.

5642 Mammea Clusiaceae x1

Tree, 5m. Bark light gray, smooth. Frt yellow  
caniferous, 8x3 cm. One seeded fruit (reptile)  
Lvs very light green below, latex "glands"  
perpendicular to midrib - seen as 'flecks'.  
Cut path exuding off-white sap.

5643 Chiconanthus Peaceae x3

Tree, 6m, 10cm dbh. Bark grey, smoothish.  
Frt glabrous, green and purple. Single seeded



5644 Andusia - Myriaceae x3

Shrub, 20 cm. Inflo. rachis bright red.  
Frts. gn, globose, ~~3-4~~ 5-8 mm diam;  
4-5 persistent red sepals. Seeds one (DNA)

5645 Mamea / Melastomataceae x10

Shrub, 1.5 m tall, weeping over river. Bark dark  
red-brown, thin. Lvs. leathery, light gm. Frts.  
sub-globose, 1 cm long, light gm, seeds 1. (DNA)

5646 Psychotria Rubiaceae x1

Shrub by river, 1 m. Lvs. leathery, light gm.  
Inflo. terminal, green. Frts. gm w/ white vertical  
stripes 1.5 x 1 cm.

5647 Rutaceae.?

x2

Tree, 7m, 10cm dbh, still rooted.  
Lvs thick leathery, gland dotted. Fruits 5x3 cm,  
gm w/ brown warty accrescent calyx lobes (5).  
Fruit wall ribbed, 4 processes above. # seeds 3,  
off white in yellow gummy flesh

5648 Fabaceae (Sorarea?)

x3

DNA

Tree, 4 m. Bark grey, smooth, covered in mosses  
and lichens. young frs purple tinged bell.  
Legumes red-purple 20 cm x 6 cm, thin, at  
least 7-seeded. Growing on river bank

5649 Sapotaceae

DNA

x10

Tree, 7m. Bark red-brown. Lvs gm above,  
golden brown below. Fr 5x3 cm, gm w/  
brown indumentum. All cut parts exuding  
white sap.

5650 Leaf lichens etc from Sapotaceae (5649)

5651 Flacaria rubra Flacariaceae. X6

Tree, 5m, weeping over river. Bark brown, slightly rugose, armed. Lvs light gm fringed, 5 cm diam. red. Some closely partly eaten by animals. Tree weeping over river (DNA)

5652 Morinda Rutaceae (DNA) X 7

Tree, 4m, 7 cm dbh. Bark grey-brown, light colored, slightly rugose. Wood yellow. Frts aggregated in 3's. [Frts gm, ripening, purple]

5653 Fern

X1

Epiphytic on falling log.

5654 Dysoxylum Meliaceae X1

Tree, 4m, 5 cm dbh. Bark light gray, smooth. Fl buds gm w/ red calyx (DNA)

5655 Coelostegia

X1

Tessellated flt, glaucous to base. Found in river. Another specimen only

5656 Bracket fungus - large - on rotting tree

5657

Prothidaceae

X1

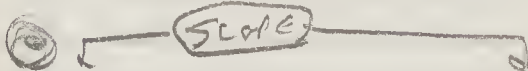
5657 *Prothidaceae*  
Epiphytic ~~on~~ overhanging on tree

*Euphyasia* ~~is~~ orchid on tree

Monday Jan 30 1995 260m

~~Starfish~~ By river

0° 45' 28.5" ) taken at 5714  
112° 51' 17.3"

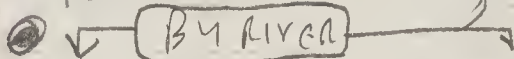


5658 Photo

Orange bad shaped bracket fungi  
Graying on vine and rotting log. Photo Up to 6 cm  
across, white within, sporing in white clouds.

5659 Knema Myristicaceae DNA x11

Tree, 5m, 10cm dbh. Bark smooth, dark brown  
Upwards, milky above and below on young bark  
brown in denatured fruit 4x2 cm, light  
brown - Peel white, entire seed white  
up brown ramifications. Fr + fragrant when cut green



5660 Saurauia Saurauaceae DNA x8

Shrub, 4m, branching from base. Bark light grey.  
Scaly hairs on young twigs. Petioles and ~~leaves~~ <sup>hairs</sup> on  
old. Petals 5, white, 1.5 cm long, bilobed, ~~long~~  
Stamens 4, white. Anthers yellow, numerous  
by river bank

5661 Dracontomelon deo Am. cordata x8  
Tree, 20m tall, 60cm dbh, growing over river.  
Bark light grey, wood white. Leaf rachis brown  
red-brown, fruits yellow-green, globose, 3cm  
diam, 1 or 2 black seed. Outside of fruit with  
remaining pith (?) half-way up fruit. Common  
along river. Fruits of apple-mango flavor, slightly  
sour. (DNA) [Seeds present]

5662 Morantaceae Donax x1  
Herb, 3m, terrestrial. By river bank. Fr 2cm long  
Style remains protruding. Seeds 1, white.  
By river bank

\*5663 lichens on lvs of Donax (5662)

\*5228

~~5663~~ Braided fungus on rotting log

5664 Terrestrial fern x1

5665 Psilotum x1  
Epiphytic on small tree. Spores present

5666 Pearcea Euphorbiaceae (DNA) x5  
Tree, 5m, 10cm dbh. Bark grey, smooth.  
Fruit bright orange 5x2 cm. 2-3 seeds inside,  
each in iridescent purple testa.



5667 Globba Zingiberaceae X7  
Terrestrial herb, 50 cm tall. ~~fls~~ Stems and  
underside of lvs purple. Inflorescences bright red.

5668 (Xanthophyllum) Ally X2  
Tree, 4 m, bark dark grey. ~~fls~~ Not of bark.  
3 cm diam, green below, ~~purple~~ purple above.  
Seed length 1. Testa white. Flesh creamy  
white. Cotyledons green, junction between them  
blood red. DNA

5669 Chionanthus Oleaceae X8  
Tree, 5 m, 15 cm diam. Leaves thick leathery,  
bright green below. Fl buds green.

5670 Leaf lichen from Chionanthus (5669)

5671 White tendrils on rotting log. Up to  
about 2 cm tall and 2 cm across.

5672 Begonia X5  
Terrestrial herb, 20 cm tall. Leaves  
dark green above w/ little petioles. Calyx red-purple,  
petals white purple. Lvs light green below w/  
brown veins.



5673 Bracket mushroom. Dark brown above  
M white rim, yellow brown below.  $\frac{1}{2}$  - 10 cm across

5674 Delicate bracket fungus on rotting  
wood. Light brown above, white below.  
 $\frac{1}{2}$  - 2 cm across

5675 Begonia Begoniaceae x 1  
Terrestrial herb, 30 cm tall. Lvs bright  
red below.

5676 Gesneriaceae (cerise?) x 8 DNA  
Terrestrial herb, 70 cm tall. Lvs green above, yellow  
below, yellow greenish purple. Bracts are a spreading  
inflorescence yellow, 6 cm long 5 cm wide, 3 cm  
deep. Corolla ~~yellow~~ light green, anthers  
yellow.

5677 Unknown DNA x 2  
Terrestrial herb. Lvs light green, fl. buds white.

5678 Selaginella x 5  
Plumbago, almost 1 m tall. Glabrous, fl. red  
20 cm long, white tipped.

5679 Rubiaceae (DVA)

X5

Terrestrial herb, 40 cm tall. Lvs dark  
above, light below. Petioles white, fls white

\* 5680 "Jaw Ear" type fungus on rotting  
wood.

\* 5681 Terrestrial toadstool. Pure white.

Stalk 3 cm long, 1 cm wide. Cap 6 cm across,  
1 cm thick

\* 5682 Yellow "filamentum" toadstools on rhizome

5683 Begonia Begoniaceae X5  
Herb, fleshy 50 cm tall. Stem red, lvs green  
above and below

5684 Zingiberaceae

X2

Herb, 1.5 m tall. Flower on stalks, white, 3 cm  
long

\* 5685 Soft chestnut brown bracket  
fungi. 8 cm across, 4 tall.

\*5686 White toadstools on rotting branch. To 6 cm tall. Cap 3 cm across. Below caps up "mesh" rather than gills.

\*5687 Fungi on rotting branch. Stalks black 3 cm long. Sporing bodies brown, 3-4 cm long 7 mm wide, like a sausage.

\*5688 ~~Yellow-green~~ Yellow-orange 'jew's ear' fungus on rotting branch

\*5689 bright Orange sporing fungi on underside of leaf of *Engelmannia* (5684). Sporing bodies 4 mm across

\*5690 1 cm Thick bracketed fungus on rotting log. White and yellow below. Above white, sporing area mustard yellow-brown. Fungus 10 cm across at top, 5 at bottom, 10-12 cm long

5691 Orchideaceae

X1

Terrestrial orchid, 20 cm tall. Infl. 30 cm long,  
rachis green, spat. Fls 5x3 cm. Petals cream  
white, labellum mustard-yellow

5692 Baccaurea Euphorbiaceae DNA X5

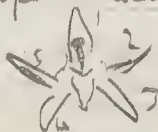
Tree 5m tall. Bark light grey, wood light yellow  
brown. Lvs light green, clustered at branch ends

~~to~~ Singalesca leaves, to about 10x4 mm. Fruit  
bright yellow, glabrous, 3 cm diam. Seeds 3 seeds  
white in thick light orange testa. Inflorescence  
ramiflorous

5693 Orchideaceae

X1

Orchideaceae, terrestrial. Saprophyte? Grass to  
1m, stem brown with dense vertical purple flecks,  
Bark light grey w/ vertical purple flecks. Fls  
yellow & purple anthers, yellowish white, upper side  
petals w/ purple stripes.



5694 Acacia

DNA

X2

Terrestrial herb, 30 cm tall. Spathe cream  
white. Filaments still young, green

5695 Leuca - Vitaceae

X5

Small shrub. Lvs green w/ ~~red~~ midrib red

on upper surface. Fruits to about 1 cm diam,  
opening red and green. 5 seeds, yellowish.

5696 Cyperaceae (Megacarpus?) x 1  
Herb to 1m, leaves with 5 cm pointed ends.  
Influence 5 cm across brown

5697 Rubiaceae Lasianthus x 2  
Small tree, 2m Lvs light green below.  
Fruit indurated blue-purple.

~~5698 Tree, 15m tall. 10 cm dbh. Bark light grey  
green, thin, smooth~~

~~5699 (415) - 11~~

5698 CHECK IT OUT ● DNA x 13  
Tree, 15m 10cm dbh Bark light grey, gro,  
thin, smooth. Fts single, semi fleshy, getting to  
about 6x3cm, riping light dull purple. Seeds!  
flattened, in delicious mango/pear - rambutan flesh,  
white, semi-translucent. & very inferior

\* 5699 Leaf lichens and nests from  
5698

5700 Rubiaceae - Lasianthus

Shrub, 15m. Bark light grey, smooth. Fruits  
1 x 0.5 cm, green, two seeded.

5701 (Symplocos? ~~Symplocos~~ Unknown y)

Shrub, 1m. Bark light green-grey. Lvs stiffly carinate.  
Fruits 1.5 cm diam green, styles remain persistent apically.  
Seed green, bright white.

\* 5702 Bracket fungi on rotting wood. 15 x  
10 cm, thin. Bark brown above and below.

\* 5703 Large bracket fungus. 30 x 20 cm. Brown  
above, bright white below.

5704 Baccaurea (DNA) Euphorbiaceae

Tree, 10m, 25 cm dbh. Bark red below, light  
grey above. Leaves clustered at apices, large,  
frs cauliferous, to about 6 cm diam. Green all  
brown warts. Seeds embedded in white grapefruit-tasting  
flesh.

\* 5705 Leaf lickers from Baccaurea (5704)

\* 5706 Mosses on bark of Baccaurea (5704)



[Noesia (leaves if fruit) seen here]

[Xerospermum too]

5707 Asclepiadaceae

X1

Epiphyte fallen from large Durio. Fls white a  
7 cm pedicels. Fls themselves 1 cm across

~~FLAT AREA AREA FROM LIVEL~~

5708 Cyperaceae

X2

5709 Cleodendron Viburnaceae X2

Fleshy shrub, 2-5m tall. Fls red frts white,  
2 seeded, in accrescent sepals. Accrescent  
sepals red. Growing in recently felled area - pioneer?

5710 Syzygium luridum Myrtaceae X3

Shrub 1m stem hairy. Fl. buds white (DNA)

5711 Leea indica Vitaceae X1

Shrub, 3m. Frts riping red. 6 leaved, one seed  
per locule

5712 Lichens from lvs of Leea indica

(5711)

5713 Connaraceae

X2

Tree, 8m, 25cm dbh. Bark light gray  
coarse, flaking, fissured. Fruit samaras  
red, 3x1 cm. Seed in orange testa.



x 5714 Ficus brachybrachy Ficus on  
Convolvulaceae (5713)

5715 Dillenia glauca Dilleniaceae x8  
Tree, 20 m, 35 cm dbh. Bark red. Lvs glossy.  
Fl. buds red. Fls. → petals yellow, stamens  
numerous yellow, purple over above, styles 6 (DNA)

x 5716 Rust and lichens from Dillenia (5715)

5717 Dioscorea Dioscoreaceae x5  
Climber on Shorea. Fruits 3-lobed,  
brown purple w/ brown warts, fruit solid  
light yellow inside. (DNA)

5718 Annonaceae x1

Tree, 4 m, 5 cm dbh. Bark light grey.  
Flower very short. Showy, 10 cm long  
(not yet reflexed). 10 petal whorls  
mustard yellow, inner whorls orange

x 5719 Leaf lichens from Annonaceae (5718)

5720 Gesneriaceae x3

Epiphyte. Lvs succulent. Calyx tube sepaline-purple,  
4 cm long with long white haired indumentum, ~~5 cm~~

Cordilla 10 cm long, anthers slightly exserted

5721 Ficus Moraceae

X 2

Climber, Lvs roughly hairy below, dentate  
Supracilia ram, florang orange and ripening red. Fruits often  
white

\* 5722 Lichens on lvs of Gesneriaceae (5720)

\* 5723 Fleshy white bracket mushrooms on  
rotting wood

\* 5724 Blancleya Rubiaceae X 2

Shrub, 1.5 m. Bark light gray & green. Compound  
infl. term, light green. Corolla blackish w/ yellow  
mid-section.

5725 Mamecyclon Melastomataceae

DNA

Tree 13m, 12 cm dbh. Bark light gray, thin,  
smooth. Lvs light green, thick leathery. 2°  
vns vaguely visible, 3° vns invisible. Fls-calyx  
tube white. Petals white, 4, caducous. Stamens 8,  
anthers blue-purple

\* 5726 ~~Blancleya~~ Fleshy brown bracket  
fungus on rotting wood

\* 5727 White bracket on rotting wood

5728 Anacardiaceae - Spandus x8  
"PLASAU" DNA

Tree, 30m, 150cm dbh. Buttresses 4m tall  
5m out. Bark light grey, flaking in large  
patches. Lvs cld, flushing red. Frts drg  
shaped, pointed at end. Fruit wall brown, fibrous  
W/ in fibres difficult to get through, revealing white  
~~and~~ cotyledons. Can be eaten, rather bland. Reamed  
as snack food or for making porridge. ~~Leaf~~ Leaf  
rachis red. Common or over on their banks  
sometimes a slopes but rarely so

5729 Tetracera Dilleniaceae x3  
DNA

Climber Bark light grey, smooth Fls - petals white,  
anthers yellow. Sepals fair. Frts at an accrescent  
sepals which turn red.

5730 Artobotrys Annonaceae x3

Climber. Bark black. Fls 6cm across, sepals  
green. Outer sepals about 4 cm long, inner ones  
about 2 cm long.

5731 Rutaceae - Eudaea xB

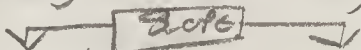
Shrub, 1.5 m. ST. FRILE. Local name  
"Saluang belau". Famous as strengthening tonic,  
aphrodisiac. (DNA)

5732 Vitaceae Leea Aubrey x1

Shrub, 1 m tall. Frts light green. Leaves  
above green, white below dark mottled.

5733 Zingiberaceae x2

Herb, 1 m tall. Lvs gm above & below. Infls red,  
w/ ~~strong~~ stem 25 cm long.



5734 Heliconiaceae x1

Monocot. Woody below w/ "gray bark".

2 m tall - wood taken as well. Infls 50 cm long.

Frts 2.5 cm across, sub-globose, ~~dark~~  
avocado gm. Seed white, ~~beige~~ yellow flesh.  
yellow takes up 1/3 of fruit. Frts eccentric on  
pedicel. (DNA)

5735 Gesneriaceae X4  
Herb, 30 cm tall. Frts light brown like  
of dehner ones

5736 Rubiaceae Lasiacanthus X5 (DNA)  
Shrub, 2m. Lvs dark above. Frts semi-translucent  
white, rimiflorous. Older branches, leaves at  
the top half, but fixed along the bottom  $\frac{2}{3}$ .

5737 Rubiaceae Lasiacanthus X1  
Shrub, 70 cm high. Lvs hairy above and below.  
Frts in dense blue purple, white skin. Calyx lobes  
persistent above

5738 Artibeus Euphorbiaceae X3  
Tree, 4m. Bark light gray, smooth. Frt spinose  
red, 5 mm diam. (DNA)

5739 Gym (DNA) Myristicaceae X8  
Tree, 15m, 35 cm dbh. Bark dark brown,  
verticillately fissured. Wood light brown.  
Frts smooth, orange brown, 8 x 6 cm. Ail  
orange, entire. Frt 5 x 3 cm, testa green. Seed  
L x-section cream white w/ light brown  
annulations. Gum part surrounding locating red sap.  
Fruit split and the 2 halves reflex in one plane to  
release seeds

\*5740 lichens off leaves of Myrsineaceae (5739)  
(Gymnacanthaceae)

\*5741 Delicate pure white and fleshy  
bracket fungi.

\*5742 Puccinia

Slimy white toadstool. Stalk 3 cm long, 1 cm  
thick, slimy white. Cap light ochre, 4 cm across  
6 appendages "sting" in shape, looking like apex  
of ~~fungus~~ moss spring body. On ground

\*5743 Fungi

On ground - 5 found. 10 cm tall stalks  
supporting large heads. These light brown ringed  
above, white below

5744 Euphorbia

x1

Shrub, 1 m. Stalk green. Infls. of yellow  
bracts. Fruit 2x1 cm, ripening red

5745 Unknown. Commelinaceae? x1

Terrestrial herb. 40 cm high. Infl. raceme  
bran. Fats red, 1 cm diam, seed one, white

~~5746~~



5746 Lagoon

X 17

Climber. Bark red brown, ~~thick~~ densely  
lenticelled. Fl. buds red-brown, anthers yellow



Tuesday Jan 31 1995

Twp of cutting block. Many ridges.

300m - 0° 42' 55.2"

11 2° 50' 34.8"

5747 *Myristiceae* *Myristicaceae* <sup>(DNA)</sup> X13

Tree 20m, 40cm dbh. Buttress small at base, 50cm exp, 1m ant. Bark gray, brittle, fissured and flaking. Lvs dark green above, dark gray hairy below. Frts 5 x 3 cm. Softly shorty hairy brown, green below. Aril bright red, split from base. Seed 1, in x-section cream w/ brown rumination. Pith staining red sap.

\* 5748 Bark lichen from *Myristiceae*

\* 5749 Leaf lichen from *Myristiceae*

\* 5750 Moss from canopy branch of *Shorea* - spring. Moss forms dense mat in crotch of branch bifurcation.

\* 5751 Moss from canopy branch of *Shorea* - spring.

\* 5752 - Moss Spring on rotting log.

← SLOPE →

5753 - Apocyn Euphorbiaceae X6  
Tree 4m, 5cm dbh. Bark dark grey, vertically  
striate. Lvs soft hairy on the blue  
young twigs as well. Berries light red, 1.5 x 0.75 cm.  
Seed one, white L x-section

5754 Leaf lickers for Apocyn (5753)

~~5755 Dipterocarpus Dipterocarpaceae X6  
Tree, 30m, 120cm dbh. Bark grey-brown,  
strongly lenticelled. Buttresses to 2m up, in ant.  
Inner bark reddish, wood red-brown. Twigs grey brown  
pubescent on the basal lf surfaces. Frt rings red.  
Frt 10cm long, not ridged along entire length.  
[Kernig] - Common~~

[Photo] Cack

~~5756 - Shorea Dipterocarpaceae X10  
Tree, 20m, 9cm dbh. Buttresses 2m up, in ant.  
Bark red-brown, longitudinally flaking, strongly  
lenticelled. Wood yellow-red. Lvs dark above  
light below. Frt 10cm long, rings wide.~~

[Tanghassia whit]

[Photo]

[IGNORE 1st PICTURE !!!]

~~5755~~

(DNA)

5755 Dipterocarpus Dipt. Dipterocarpaceae X 57

Tree 20m, 70cm dbh. Buttresses 2m up, 1m out. Bark red brown, longitudinally flaking, strongly lenticelled. Wood yellowish. Twigs grey, brown pubescent on abaxial lf surfaces. Frt wings red. Frt 10cm long, violet ridged along entire length [Photo]

5756 Shorea Dipt. (DNA) X 12

Tree, 20m 45cm dbh. Bark smooth, brown, wood yellow. Lvs dark above, light below. Frt 10cm long, wings wide [Photo] [<sup>Buttresses</sup> 50cm up, 1m out]

cristatus?

5757 Dipterocarpus Dipt. (DNA) X 57 #14

Tree, 20m 120cm dbh. Bark grey-brown, strongly lenticelled. Buttresses 70cm up, 1m out. Inner bark reddish, wood red brown. Young twigs, ~~frankies~~, buds and lf abaxial surface long hairy ~~frt~~ Not winged winged from tip to bottom. Vngs (calyx) red-green [Photo]

\* 5758 Lichens from bark of Shorea (5756)

\* 5759 Lichens from bark of Dipterocarpus (5755)

\* 5760 Lichens from bark of Dipterocarpus (5757)

\* 5761 Bracket fungus from rotting wood

\* 5762 Yellow toadstool from rotting wood.

\* 5763 Toadstools from soil. Stalks 10 cm tall, pink. Cap 4 cm across, orange, gills below white.

5764 Medinilla Melastomataceae x3  
Climber from Dipterocarpus (5757)  
Bark light grey, fruits orange-red.

5765 Zingiberaceae x2  
Terrestrial herb. 1.5 m tall. Lvs green above and below.  
Inflorescence red.

5766 Climber on Dipterocarpus (5757) <sup>Loranthaceae</sup>  
Fls bright red, 12 cm long, bracts yellow (XANTHACEAE)

\* 5767 Leaf lichen from hoodia (5766)

(Lamellata?),

5768 Dipterocarpus Dipt DNA x3

Tree, 20m, 65cm dbh. Bark light & ash grey  
flaking & longitudinal plates, 30x10cm

Leaves leathery, smooth, light green below. Bud  
of thin green-grey tomentum. Not upper edges.  
Strongly lamellated? (Photo)

Flowers like

5769 Unknown Viciae? DNA x10

Tree, 15m, 25cm dia bark grey brown, orange  
felt like knot at both ends thinner, 4' ms

like like. Fruits lay-hairy. Seeds 1

[1st 1 cm diam of out hairs, w/ hairs 4 cm]

[Ting pink red-brown]

#5770 leaf like from 5769

5771 Shorea Dipt MK X10  
Tree 25m, 40 cm dbh. Bark dark DNA  
chocolate brown, smooth. Lvs dk gm  
above, yellow-gm below. Nut red at base, rest  
of nut and wings yellow. Wood yellow  
[Leaf lichen must descend...]

\* 5772 Bark lichen from Shorea  
BOTTLE OF SLOPE METER (PACIFIC)

5773 Sapotaceae DNA X6  
Tree, 5m - STILT rooted. Bark red-brown. Lvs  
dk gm above brown pubescent below. Frs  
4 x 2 cm on 4 cm pedicels. Persistent calyx  
brown. All ~~parts~~ inside white  
sap.

\* 5774 Lf lichen from Sapotaceae (5773)

\* 5775 Mosses Spring on pole of  
Syzygium (7 cm dbh) Mosses, ground  
from pole inside a bracket fungus

5776 Anacardiaceae DNA X8  
Tree, 8m, 15 cm dbh. Bark light grey, thin  
smooth. Twig bark dark brown, black  
Flr 3 cm diam, green w/ white flesh seeds.



x5 777 Lichened lvs from 5776

\* 5778 Thin brown bracket lvs  
from rotting standing bole. Bracket about  
10 x 10 cm, surrounded by small flies.  
Bocchet of a thin rubbery mycelium 3m  
tall and + 60 cm wide. Yellow brown  
and white at edges

5779 Melastomataceae (DNA) X1  
Terrestrial herb. 30 cm tall. Lvs dark gm  
abv, light gm below. Fts ripening brown purple  
from yellow-gm.

MARSTINAREABEIN 2006

\* 5780 Moss growing on bark of small tree

\* 5781 Two sps of toxic stalks growing  
together. Smaller one light brown stalks 5 cm,  
Caps rounded, 1 cm across. Larger ones up to 12 cm  
stalks red-brown. Caps white, 5 cm diam, flat  
from ground.

5782 Unknown

(DNA)

→ *Prenanthes*  
X2

Shrub, 10 m tall. Bark red-brown.  
Lvs leathery, light gm below. Fts green  
on persistent yellow calyx. Fts green.

subglobose, del. grey flecked, 6 cm diam.  
Fits 2 seeded woody, white

5783 Liliaceae x 2  
Lower part of stem woody, light brown  
Fits 2 cm diam, subglobose, gm, 1 seeded.

5784 ~~Zingiberaceae~~ Marantaceae? x 4  
Herb, 20 cm tall. Yg lvs, purple  
below, otherwise gnt bls white, 10 cm long  
Kefted lobes, 5 cm across, slightly yellow  
at base of spray of lower liliaceae.

5785 Begonia Begoniaceae x 3 (DNA)  
Shrub, 1.5 m tall. Woody below, both  
brown and green. Lvs light green blw, lvs  
on this old, and light gm.

5786 Krene Myristicaceae x 8 (DNA)  
Tree 12 m, 15 dbh. Bark brown, brittle  
lvs sanding red sap. Lvs light gm  
glaucous blw. Fruit 8x4 cm, ripening orange  
and red. Oil red, entire. Small strong  
fragrant seed 1, in X-section white w/  
brown markings

\* 5787 Richus on lvs of Krene (5786)

5788 Liriodendron sp., canopy  
rotten log in stream in steep gully.

5789 Moraceae sp. in  
rotting log on slope



Beck Stream



5790 Euphorbiaceae Pongia X3 (DNA)  
Tree, 3m. Bark thin, light gray, smooth  
Fls glabrous, 3 angled, bright orange yellow  
Seeds 3, white, each with reddish testa.

5791 Globba Zingiberaceae X1  
Herb, 70cm, fls white

5792 Unknown X1  
Tree, 2m. Fls buds dark green

5793 Meliaceae Alain X3 (DNA)  
Tree, 3m, 5m dbh. Bark gray  
Flts large & fls yellowish, sweet nutty  
smell

5794 Ficus Moraceae X4  
Tree, 3m. Bark grey-green. ~~for~~ Spines  
centrifugal, 1cm diam, yellowish  
white flowers. Fls brown.

Out part of watery red sap.

5795 Fabaceae (DNA) X5

Shrub, 4m, weeping over river, 10 cm dbh.  
Bark orange-red, inner bark greyish.  
15 x 8 cm, 1 or 2 seeded. Legume, opening  
dull light green. Common along river bank.

5796 Rubiaceae

Shrub, 70 cm tall. Bark red brown,  
creamy greyish. Bark inner bark  
purple, 2-seeded X3

5797

Costus

Zingiberaceae

X1

Herb, 2m tall. Infls. terminal, red.

5798 Medinilla Melastomaceae X6

Epiphyte on large tree, 150 cm dbh.  
Foli. very light green. (DNA)

5799 Boeckl Jugman cottony  
wood

5800 ~~Syzymia~~ Myrsine X5

Tree, 8m tall, 20 cm dbh. Bark  
grey. Ed- brown. Calyx white  
greenish pink-bronze (light).  
Stamens white. Ovary greenish white.

5801 Lasiacanthus Rubiaceae X6

Shrub, 4m. Bark green like dark  
olive, light blue. Fls green. (DNA)  
Numerous seeds. Overhanging small  
stream.

5802 Rubiaceae (DNA)

Shrub 1m. Bark light grey thin; lvs  
shiny leathery. Fls: young orange-  
yellow w/ numerous tiny yellow seeds.

5803 Unknown (Rhizophoraceae?) X6

Tree, 5m, 15 cm dbh. Bark thin,  
smooth, light grey. Lvs opp. and  
petioles, hard at both ends.  
Fls small, white. Fls green. (DNA)

5804 Unknown

Small herb on rock - X6  
not like D. Stream.



5805 Orchidaceae X3

Epiphyte on ~~log~~ legume - same  
species as (5795)

5806 Land toadstools on rotting  
X wood log

~~5806~~ RIDGE TOP

~~5806~~ 5523

Pluricaceae

XB

Shrub 2m. Bark green and purple.  
Jem 4-angled all the way down  
Fl. buds green

5807 Fungi - Toadstool X2

~~Epiphyte~~ Envelopes at bottom  
and stalk white. Stalk to 15 cm,  
1 cm diam. Cap 8 cm across brown-gray  
above, white below. On ground.

Seems stable

CAMP MND 205m

$0^{\circ} 46' 52.0'' / 112^{\circ} 51' 15.7''$

5808 Orange-brown bracket  
fungus on rotting wood

5809 White bracket fungus on rotting  
wood.



Wednesday, February 1, 1995

Camp Mud - cont 1/2 day for beginning  
of Ramadan. (Production lost Jan / July)

230m. Same hab / Hwy Jan 31 Slope

5810 Sapindaceae

x3

Shrub 4m. Bark light gray-brown, flaking  
lvs. light gm. Infl. rachis brown. Fl. buds  
red. Fats 3-lobed, light gray w/  
persistent red sepals. Seeds with thin  
deep red-purple flesh. (DNA)

5811 Annonaceae Polyalthia

190

Tree, 10m, 25cm dbh. Bark light gray,  
strongly lichen patched. Wood yellow.  
Inflorescences ~~single~~ racemose. Bracts  
dark red, 5 x 3 cm. Seeds 1, white  
transparent flesh w/ white radiating  
rays. (DNA)

\*5812 Lf lichens from Polyalthia (5811)

\*5813 Bark lichen from Polyalthia (5811)

5814 Garcinia Clusiaceae X1 DNA  
Tree 4m. Bark light gray, lvs  
glossy. Fruit 10 x 4 cm, including  
3 cm long "beak". Bright orange-red.

5815 Euphorbiaceae - Baccaurea X10  
Tree, 10 m, 25 cm dbh, Bark gray, flaking  
in small pieces, rough wood pink-brown.  
Fruit subglobose, 5 cm diam. Seeds 3,  
orange ~~red~~. Flesh ~~is~~ translucent  
white. Watery, tart to taste. Seeds  
orange testa, white w/in. Fruit are  
really good

\*5816 Lichens from leaves of  
Baccaurea (5815) - race DNA

\*5817 Lichens from bark of  
Baccaurea (5815)

5818 Rubiaceae X1  
Shrub, 1.5 m. Fls white

\*5819 Moss on rotting log.  
2 species growing and growing together

↙ On a stream deep bottom ↘

5820 Knema Myristicaceae x1  
Tree, 4m. Both bran. Leaves glaucous  
blw. Fruit 7x4 cm, slightly beaked,  
orange-brown colored. DNA

5821 Begonia Begoniaceae DNA x3  
Herb, to about 20 cm long, has dark  
gm above red leaf spines. Red below.  
Flower 4x2 cm (longitudinally oriented).  
White w/ yellow ~~marking~~ marking at entrance  
to flower. Growing along ground.

5822 Orchidaceae x5  
Epiphytic orchid. Stem about 10 cm long,  
tender and delicate. Flower 5 mm long,  
white with 4 purple marks at opening  
to flower. Growing among dense mosses  
on small tree (5 cm dbh)

5823 Saurauia Saurauiaceae x5  
Tree, 8m, very green with light  
gm below. Light brown vms.  
Fruit gm w/ numerous small brown seeds.  
DNA

5824 Psychotria Ambricaceae x7  
 Tree, 4m by streamside. Frs glossy  
 gm w/ ~~go~~ Whitish longitudinal  
 stripes DNA

\* 5825 Bracket fungus x1  
 Bran black bracket fungus on  
 rotting log. Giving a white spores  
 underneath



5826 Uphornia DNA x12  
 Climber. Lvs alternate, serrate  
 Inflorescences on stem. Fls red  
 inside white w/in

\* 5827 Alseodactylus x2  
 White thin and delicate strands  
 on cutting branch.

\* 5828

Fleshy white bracket fungi  
with cotton like "stuff" growing  
over them, on rotting log.

5829

Annonaceae x2  
Shrub, 3m. Bark black, lvs light  
green below w/ brown midrib. FAs red,  
fleshy, globose, 1 cm diam, single  
seeded.

5830

Durio Burseraceae x2

Tree, 7m, 20 cm dbh, weeping over  
stream. Fruit calyciform, light brown,  
15 cm diam. fAs white w/ in, seeds to  
6 x 4 cm, air thin, pink-cream, dry.  
Bark dark red, smooth. Inner bark red.  
Wood ~~dry~~ light red-brown  
Lvs golden brown below w/ brown scales  
visible to eye. (DNA)

5831 Lichens on leaves of Durio (5830)

5832 Lichens on bark of Durio (5830)



5833 Myrmercaulea

X4

Common herb on rocks in stream  
Leaf clusters spread horizontally. ~~Fls~~  
Lvs gm & red. Fl. heads gm.

5834 Gerrania (DNA) X3

~~Terrestrial~~ herb, 20 cm. fls from base, 2 cm  
long, white lvs dark gm

5835 Rubiaceae (Gardneria?) X8

Tree, 8m, 25 cm dbh. Bark dark  
brown, densely and prominently lenticelled.  
Inner bark red-brown, wood yellow-brown.  
Lvs light gm above, both sides matte  
Frt: gm <sup>but</sup> white indurated. Calyx tube  
prominent, 1-2 cm long, frts appear  
2 loculed of numerous white seeds to  
2 x 1 cm. (DNA)

\* 5836 Bark lichen from  
Gardneria (5835)

\* 5837, Leaf lichen from  
Gardneria (5835)



5838 Ficus Moraceae (DNA) x6

Climber. Bark white, smooth. Fruits on  
lower part of climber, up to 3m from  
ground, 1cm away from start of lvs  
(Climber 8m long). ~~Fruit~~ <sup>Fruit</sup> ~~carpels~~ <sup>carpels</sup>, orange  
w/ white speckles, 1cm across & 5cm  
gm peduncles. Fts brown and red  
within. White latex for all cut parts.

~~Tip of~~ Yg branches w/ dark brown indumentum,  
petioles as well. lvs light gm blue.

5839 Urticaceae (DNA) x6

Tree, 5m w/ stilt roots. Wood gray, brown (light),  
Leaves and yg trigs w/ long, brown-haired  
indumentum. Inflo. (ramif) cauliflorous.  
Fl buds 1cm across, light gm. Fts  
opening red.

\*5840 Braided fungus

Braided fungus on rotting branch. Stalk  
brown, to 3cm. Body brown ridged above,  
white below. Shape spatulate (?)



~~5841 Terrestrial fern. Spore [X1]~~  
~~scattered across log~~

5841 Cylochidion - Euphorbiaceae X6  
Tree, 8m. Bark light grey, smooth.  
Wood white. Lvs light gm. Fls yellow  
mottled red, 3 gm gm calyx lobes  
perianth 3 seeds 1/4 in, green.  
Fruit 1 cm across

(DNA)

[densely hairy  
articulated]

5842 Terrestrial fern X1  
Srs scattered across low limestone  
surface

5843 Annonaceae X2  
Shrub, 2m. Bark red brown, Lvs  
light green, Frt: cankerous,  
3x2 cm, yellow below, gm above  
Seeds 1/2 in, pale semi-transparent  
pink w/ purple-black ramifications.

5844 Terrestrial fern X3

~~5845~~ ~~Boerhaavia~~ fungi on  
rotting log

\* 5846 ~~bract finger on rotting log~~

\* 58

5845-5849 Different bract  
finger on rotting log.

5850 Unknown

X1

DNA

~~Shrub~~ 1.5 m. Yaw branches and  
uns. leaf undersurface w/  
dense dark red brown indumentum.  
Fruits axillary, dark red, styles remain  
pendant. Seed 1, white.

Lanceum (Litsea?)

5851 Unknown (Lanceum?) X8

Tree, 5m, weeping over river. Bark  
red brown. Lvs glaucous below.

Fibers yellow, 5mm long

DNA

5852 Artocarpus Maricaoensis X1

Tree, 25m, 70cm dbh. Buttresses 2m  
up, 4m apart. Bark light grey. Fruit  
30cm diam. Sample from fallen tree  
w/ live and fruit.

5853

grazing about 60cm  
\* fleshy ~~white~~ white semitranslucent  
fungus on living tissue of same tree

\* 5854

Moss on Mammea, 3 cm diah (small sample)

5855 Terrestrial fern x1

\* 5856 Black bracket fungi, reddish

\* 5857 Chestnut bracket fungi, cream-green blue

5858 Rubiaceae X2

Herb by stream. Viviparous? Check Yang shao on top of frts.

5859 Ardisia Myrsinaceae X5  
Tree, 4 m. Bark brown. Berries pink with thin white longitudinal stripes, 1 in across, one seed (DNA)

5860 Terrestrial fern X1

5861 Brachydactylus (Apocynaceae?) X2  
Epiphytic orchid on rotting log, lvs green above, strongly tinged purple below. Inf. 15 cm long, flowers white.

red and gm.

5862 Artibeus Euphorbiaceae X5  
Shrub, 4m, weeping over small creek  
Yg twigs with dense dark chocolate  
brown tomentum, lvs light gm  
bluish ~~if~~ light red brown vms.  
Inflo 20 cm long, yellow (DNA)

\*5863 lf lichen from Artibeus (5862)  
Small fungi

5864 Orchidaceae X2  
Terrestrial orchid, 60 cm tall  
lvs gm above and blw. Inflo reddish  
red. Petals green, red toward base.  
Basal petals reflexed back

5865 Marimaceae? X1  
Tree, 3m. Lvs leathery, bullate  
serate. Bark grey-green. Fls yellow.

5866 Melastomataceae X (DNA)  
Creeping herb on fallen log by  
stream. Red and green hairy lvs  
and buds - CHECK IT out...



5867 Unknown

x1

Herb on rock above stream. Vinyrous  
on lower leaf surface CHECK IT out  
VIVIPAROUS

5868 Bracket fungus on rotting  
log. White and brown ringed abv,  
white below.

5869 Gesneriaceae ? x6  
Shrub 1m tall but spreading beside  
~~stream~~ stream. 45+ trigs fleshy,  
lvs light gm. Frts and bracts  
light gm. Frts 1.5 x 0.5 cm  
2 loculed w/ numerous seeds. DNA

5870 Gesneriaceae

x2

Herb, 20 cm tall. Fls 2 cm long,  
1 cm wide, white. Fruit 4 x 0.5 mm.

5871 Unknown - (Begonia?) x2

Herb on rock by stream, 30 cm tall.  
VIVIPAROUS

One seedling seen to germinate in  
influence



5872 Unknown X1  
Herb growing on rock in stream.  
Ca 5. Fleshy...

5873 Fern X2  
Epiphytic fern on small tree

5874 Meliosma Sabiaceae X1 (DNA)  
Tree, Fr, 15 cm dbh. Bark light  
brown. Trunk bark greyish-brown.  
Warty lenticellate. Frts 5x3 cm,  
lig. green. ~~Seeds~~ ~~Seeds~~ Pyrene 3 angled  
Seeds 1/2 in white in fleshy white fleshy,  
taking up only about 50% of room  
in pyrene.

5875 Polyalthia Annonaceae X2  
Tree 4m. Bark light grey wood  
yellow brown. Frb callus / resinous  
Frbs deep red, 3x1 cm, beaked.  
~~Seeds~~ Seed 1, white 1/2 in.

5876 Orange bracket fungus on  
rotting log

~~Thursday Feb 2, 1995~~

Friday, Feb 3, 1995

~~340m~~ 340m

0° 42' 39.6"  
112° 50' 17.7"



5877 Lakisia ?) Myrsineae X 2

Terraced tree, 30cm. Fts brown-red

5878 Opuraceae X 2

Epiphytic in upper canopy branch of a large Shorea

5879 Ordiaceae X 2

Epiphytic orchid on Dipterocarpus Fts  
4 X 2 cm, gm and red.

5880 Myristica Myristiceae X 10

DNA

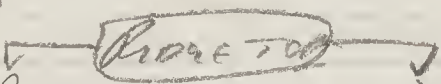
Tree, to 20m 35cm dbh. Bark grey-brown,  
heavily lichen-patched fl. to about  
1cm long, sepals brown outside, cream-yellow  
within. Young frigs and leaves below  
at canopy can appear brown tannish,  
blood colored old say from end parts

\* 5881 Bark lichen from Myristica (5880)

\* 5882 Leaf lichens from Myristica (5880)  
Lichens rare

5883 Annaceae (Odyellia)  
Shrub 2 m. Bark brown. Fruits purple and cream-white. Lvs light green.  
Hb. [Fruits 1-seeded & fleshy white flesh.] DNA

5884 Bark lichen  
Thallus lichen on upper canopy branch of Shorea,  
blue-green

  
5885 Mesua X6 DNA  
Tree, 20 m, 25 cm dbh. Bark orange brown  
fleshy in large patches, inner part slightly  
chocolate brown. Bark heavily lichenized.  
Leaves slightly coriaceous, 4° venation distinctly  
bar-like below. Fruits ~~are~~ chocolate brown,  
woody, with hardening yellow latex, and  
persistent calyx, to about 5 cm across.

\* 5886 Bark lichens from Mesua (5885)

\* 5887 Leaf lichens from Mesua (5885)

5888 ~~Cynometra~~ <sup>Arceuthobium</sup> ~~metastemon~~ x1  
Climber on Morne (5885). Ffts  
yellow. outer. (DNA)

5889 Orchidaceae - (Renealmia) x1  
Epiphyte on Morne (5885). Lvs  
green above. Stem and lvs below purple.

5890 Ficus Moriceae (DNA) x1  
Climber on Shorea. V. reddish brown  
on lvs below. White latex from all cut  
parts for gum

5891 Alseodaphnaceae (Alseodaphne) x (DNA)  
Tree, 10m, 20m. Lvs both grey, brown  
ffts green. Lvs leathery, light green below.

5892 Dipterocarpaceae (Pipt) x2  
STERILE - Vacheria only, tree, 25m,  
75m. Lvs on edge. Generally  
on or near ridge tops. Lvs both grey,  
flaking on bark, fissured on branches.  
Young parts covered in long stiff hairs.  
Reddish brown underneath.

(DNA)

5893 *Garcinia Clusiaceae* x 10  
Tree, 10m, ~~15~~ 20 cm dbh. Bark light  
grey, rugose, yg rings red-brown.  
Lvs leathery, venation invisible below.  
Frt green to about 2 cm diam. Fls  
ylw, seeds 2, yellow gm, watery. DNA

5894 ~~Shorea~~ *Dipt. Bursera* x 10  
Tree, 25m, 80 cm dbh. Bark dark  
chocolate brown flaking. Lvs light gm.  
young fresh w/ long indumentum. Calyx rings 2.  
lght green, <sup>1.5 x 1.5</sup> 7 x 3 cm, No mv DNA

X 5895 Leaf lichen from *Garcinia* (5893)

<sup>Crustulose</sup>  
5896 ~~Prunella~~ *Dipt* DNA x 10  
Tree, ~~light brown~~. Stem brown deeply  
longitudinally fissured. Lenticles and  
small chocolate brown indumentum.  
If underside w/ golden brown indumentum.  
Lvs dark gm abv, vms and midrib yellowish.  
Calyx like gm w/ brown warts and occasional  
white waxy, thinner patches. Fls 1.5 x 1.5 cm.  
Wings light gm, spatulate, 20 x 6 cm.



\* 5897 Bark lichen of *Fraxinus*  
Cotyledon 5896

5898 Rosaceae - XD

Tree, height unknown. Frts 5-12 cm, brown w/ brown warts. Seed cov, yll w.

5899 Ficus Moraceae X4  
Climber. Bark ~~red brown~~ light brown.  
~~Fruits green, lanceolate~~ Syncarpous, globose  
acorn, frts brown

\* 5900 Lf lichen from Rosaceae (5898)

5901 Euphorbiaceae (DNA) X1  
Tree 5m, 6cm dbh. Bark light red-brown  
lvs dark green above, strongly glaucous below.  
Frts red on angles, otherwise light  
green, 3-lobed, one seed per lobe

5902 Theaceae/Rutaceae (DNA) X3  
Climber, 2-3m tall. Bark brown  
at numerous scars. Frs a distinct capsule.  
Leaves leathery, light green, pinnate. Shredded.  
Oil glands visible to eye. Petioles and youngest  
branches red.



\*5903 Moss growing on rotting  
Stump

\*5904 Branched fungus on rotting log  
2° brackets grow off 1° brackets

5910 Syzygium Myrtaceae DNA X6  
Tree 15 m, 30 cm dbh. Bark red brown, but  
appearing green w/ lichens, twig bark smooth,  
bird-scratched lower bark brown, wood  
yellow brown. Bud 3x1.5 cm, 4 calyx lobes,  
anthers cream green in bud.

\*5911 Leaf lichens for Syzygium (5910)

\*5912 Bark lichens for Syzygium (5910)

5913 Garcinia (Clusiaceae) X6

DNA  
Tree, 3 m, dbh 5 cm. Bark red-brown  
Obs thick, leathery, latex canals easily  
visible. Frs to about 5x4 cm, in x-section  
single seeded w/ white latex. Calyx  
lobes reflexed.

\*5914 Heavily lichenized lvs of Garcinia  
(5913)

5915 Shorea (Dipt) Mm x ~~5~~ 10  
Tree, 25m, 25cm dbh. Buttresses  
21m tall, about 1m out. Bark red-gray,  
slightly fissured and flaking. Lvs  
below smooth, lvs bright green, mostly lichen  
free. (DNA)

x 5916 Lichens on bark of Shorea (5915)

5917 Euphorbiaceae (DNA) x5  
Tree, 7m, 10cm dbh. Bark slightly flaking,  
gray, strongly lichen-patched - lvs smooth  
frts/dark green, 3-lobed, 1.5 cm across. One  
seed per lobe. Lvs strongly lichenred

5918 Lichenred lvs of Euphorbiaceae (5917)  
~~Tree, 8m, 6cm dbh. Bark gray. Lvs~~  
~~and young twigs stiffly~~

5919 Euphorbiaceae Mallotus (DNA) x5  
Tree, 8m, 6cm dbh. Bark gray. Lvs and  
yg twigs shortly stiffly hairy. Frts 2-lobed,  
stiffly hairy. Spiny.

5920 Rubiaceae (DNA) x5  
Tree, 8m, 6cm dbh. Bark brown. Lvs

glossy gm. ~~long~~ Pts gm, white at apex, glabrous,  
1 cm diam. Numerous tiny seeds inside

\*5921 Toadstool

Toadstool - fa grand. All parts cream-white.  
Stalk 6 cm cap 8 cm across. Said by local  
informant (A. Bayar) to be poisonous.

5922 Meliaceae (Aglaia ?) X10

Tree, 30 m. Bark deeply longitudinally  
fissured. Young leaves w/ decurrent  
glandular or resinous and milky latex. Infls  
w/ some indumentum [slightly buttressed  
at base, (flange-like)] 40 cm up 3 m up.  
Bark red brown, inner bark white, wood  
white yellow, 40 cm diam. [Hardly any lichen etc  
on tree. Exudate creamy white]

\*5923 Bark lichen from Meliaceae 5924

5924 Anacardiaceae (Chetonea?) X4

Tree, 8 m tall, 6 cm dbh. Bark brown. Lvs  
stiffly coriaceous. Fruit to 3 cm across on stalk  
(gynophore?), sitting above still persistent calyx  
lobes and remnants of stamens. Fruit w/ 1 seed.

DNA

5925 Dipterocarpus Pipt DNA X1  
Tree, 30m, 65cm dbh. Buttress 2m, 1m at  
Bark red-bran, long, irregularly flaking  
Lvs light gm, pinnate, prominent fin  
v. fine (dry season?), fin  
red winged - me just lvs  
faint  
upward

5926 Unknown DNA (Choraceae) X16  
Tree 20m, 55cm dbh. Bark <sup>red</sup> brown, ~~decid~~  
~~decid~~ ~~leaf~~ lvs bark red brown wood  
yellow, lvs light gm, leathery. Fl. buds  
green on 4cm pedicel, stamens numerous ~~base~~  
Base fluted 4m up. 1m up (Ardillo) [CHORO]

\* 5927 Krameria Myristicaceae X8  
Pdham, 12m, dbh 15cm. Bark brown. Cul  
pots of red sap. ~~lvs and twigs hairy~~ DNA  
Twigs and lf vns and midrib below brown  
nary, rest of leaf under surface glaucous  
all glaucous brown hair

5928 Rubiaceae DNA X8  
Climber on Shorea, Fl. buds gm, open fls  
white

5929 Shorea Dipt. MP (Saput)  
Tree, 35m, dbh 70cm, Buttresses ~~large~~  
DNA

1m up, 1m out, Bark <sup>d.b.h.</sup> red-brown w/ large  
flakes. Dammer yellow-white.  
Lvs thick leathery, folding upward,  
Glypse wings gm and red. In dry season  
it is reported to be red [PHOTO]  
(photo diff. tree of same sp.)

\* 5930 Lichened leaves from Kaena (5927)

5931 Anacardiaceae (Mangifera!) X10  
Tree, 10m, 15cm dbh. Fruit 4-5cm, light  
green. Single seeded and exuding white  
sap. Bark red brown, strongly lichen  
marked. Lvs light gm below, dark above.  
[Seed yellow] [Wood white] [Sap blackens]  
\* 5932 Lichened lvs of Mangifera (5931)

\* 5933 Lichened bark of Mangifera (5931)

5934 Unknown DNA X1  
Climber on Shorea (5929)

\* 5935 Spacing moss on rotting log

\* 5936 Spacing moss on rotting log

\* 5937 Green Thallus Lichen on  
tree bole, 30cm dbh



5938 Orchidaceae Climber of large ~~tree~~ <sup>height</sup>  
~~Euphytica large Dipterocarp~~. Lvs dk gm  
above. Fls 5x5cm light gm w/  
dark gm marbling.

5939 Orchidaceae x8  
~~Euphytica~~ Dipterocarp (same as 5896)  
Lvs light gm, scale lvs red-brown  
Fls 4x3cm white, yellow at entrance  
to fls.

5940 Unknown (DNA) x2  
Climber on fig (same as 5896). Lvs  
light gm. In fls, midrib and vn on under-  
side of up. Lvs young frs, with dense  
rusty orange tomentum. ~~only~~ Sepals 4,  
stamens 4 (anthers ylk), bisexual.

5941 Annonaceae x1  
Climber on Shorea. Both sides  
brown. Fts 4x2cm, soft hairy  
tomentose, rusty brown. Seeds 2, dark brown.

5942 Unknown x4  
Climber on Shorea. Both sides  
grey lichen patched, Lvs light gm



blw. Frts winged, 1 cm long, info. terminal

5943 Flacourtiaceae (Rhamn?) CHECK <sup>X10</sup>

Tree, 20m, 30 cm dbh. Bark brown,  
strongly like patch. Inner bark yellow-  
brown, wood yellow-brown. Lvs thick,  
leathery dark abv, light blue and  
glaucous below, 1.5 cm diam,  
calyx fls sepals 3, persistent.

2 style scars per fruit fls 2 seeded,  
or 1.5) 1 abaxial DNA

\* 5944 lichen on bark of 5943

\* 5945 lichen on lvs of 5943

Saturday Feb 4, 1995 245m  
Lissing it down, NA yesterday's site  
250m

⑤ — SLCPE — ⑥  
5946 Malvaceae DNA x5  
Climber on Shore. Fl. buds light green  
Yg leaves black brown. Bark brown-green,  
square fissured

5947 Gualtheria Ericaceae DNA x2  
Climber on Shore. Bark red-brown, rough.  
Lvs stiffly leathery, fls greenish, orange atv

5948 Loranthaceae DNA x1  
~~Pl. on shore~~ Parasitic (?) on Shore  
Stems green-brown. Lvs light green, leathery  
Fl buds white

\*5949 Fungus  
Bracketed fungus on rotting wood. Stalks  
1 cm, orange-black above, grey below

\* 5950 Fungus  
Terrestrial + woodstnd. Stem 1 cm thick, black,  
hard. Cap 12 cm across, black above,  
gray blue.

5951 Fabaceae DNA X 4  
Tree, 6m, 7m dbh, bark smooth, light  
buff-brown. Lvs light below. Fls  
1 cm long. Calyx bright scarlet red,  
corolla purple.

\* 5952 Moss on Small tree  
young sapling branch

\* 5953 Moss on Small tree  
young sapling branch  
(Small sample)

\* 5954 Brecher fungus on rotting  
log. cream-orange. Sp. white blue

By 5 Sept 1961

5955 Meliosma

Tree, 7m, 15 cm dbh, bark light gray,  
weeping over nodes. Fls light green,  
subglabrous. 4 cm across. Yfere with  
hard dark waxy green coat. Seed with  
thin fleshy rfc.

5956 Artisia Myrsinaceae (DNA) x8  
Shrub, 3m. Bark light brown.  
Inflo rachis red fls 4/5 cm across dark  
gm, style remnant apical. Int. section are  
dark grey seed!

5957 Samanea unidentified (DNA) x1  
Shrub, 3m. Bark green and brown below. Fruit  
green on 2 cm peduncle and 5 pointed  
green calyx lobes. Fls splitting into 3  
3/4 numerous small brown seeds.

5958 Vitaceae (DNA) x1  
Climber has brown below. ~~vent fls~~  
elliptic, 3 cm, bright red and gm.

\* 5959 Fungus  
Creeping brown fungus, some w/  
white margins, on (Hing) log.

\* 5960 Toadstool  
White toadstool on (Hing) log

5961 Fern  
Epiphytic on ~~the~~ fallen branch from large  
tree

5962 Fern  
Terrestrial fern

XI

5963 Acanthaceae (DNA) x2  
Terrestrial herb, 50 cm long. Stem  
dark green. Fls green, 3 cm long. (1)  
one cream seed. Fls cream

5964 Ficus Mammee (DNA) x6  
Climber or small tree. Bark grey brown. Sapcren-  
centiferous, 5-10 cm diameter, opening  
orange w/ white dots making it rough to  
touch, fls brown. White latex from  
cut palm.

5965 Melastomataceae x1  
Epiphyte on small tree. Bark light  
grey. Lvs thickly leathery. Fls  
2 cm diam, calyx tube white,  
lobes transparent white (4),  
stamens 8, purple.

\* 5966 lichen on leaves of  
Melastomataceae (5965)

\* 5967 moss growing on small tree

5968 Epiphytic fern X1

5969 Epiphytic fern on largetree X3

~~Stachys~~ Dipterocarpaceae

5970 Vaccinium Ericaceae (DRA) X1

Shrub, 1.5 m. Lvs. ~~Shrub~~ 1170 m. (Hb)  
lvs. leathery, succulent, light gm. blue,  
ftr. gm. Dipterocarpaceae

\*5971 Moss of upper canopy band  
of large ~~Stachys~~ (170 m. Hb)  
Piptocarpaceae

5972 Euphorbia Malvaceae (DRA) X4

Shrub, 1.5 m. Bark brown-green. Ftr.  
4x2 cm. of persistent green sepals.  
Seed 6x4 of three lobes, each of  
white seed.

5973 Moss on upper canopy band  
of ~~Stachys~~ Dipterocarpaceae

5974 Orchidaceae X3

Epiphytic orchid. Buds black, white

On moss

5975 Nepenthes X1

Epiphytic. See lvs. read below. Tray 5x2  
cm.



\* 5976 Blue green thallus 1, then  
on upper canopy branch of ~~Shorea~~, in

Diplazium

SCOPE

5977 Melastomataceae x3

Herb, 20 cm tall. Lvs light green.

Fls white, in 3's

ex becoming pink

5978 Rubiaceae x1

Shrub, 2 m. ~~Fls~~ Bark brown

Fruit purple, same scar accrescent. Seeds 2,  
white

\* 5979 Bracket fungus on rotting log.  
~~fleshy~~ fleshy transparent white  
with pink-purple layer above

5980 Medicilla Melastomataceae x1

Scrambler, 3 m Bark light brown.

Fls in pairs to 9's, campanulate. Calyx  
tubed, corolla purple. Lvs thick  
leathery, light green.

5981 Pleinanthus Vitaceae x1

Info only found. Umbel. Nodes bright  
red w/ yellow dots. Fls 3 cm long

5982 Cyperaceae x1  
Terrestrial herb, ~~1.5~~ 1m tall.

5983 Flacourtiaceae x2  
Flacourtiaceae

Tree, 4m. Fl. red. Bark grey. (A. B. B. B.)  
Scalot 5 x 2 cm, single seed.  
→ white w/ brown tinge in white-  
cream yellow flesh

5984 Mass spawning on rotting wood

5985 Melastomataceae x3  
Terrestrial herb, 20m. Infl. reddish  
red, fls white.

5986 Rubiaceae (DNA) x4  
Terrestrial herb, 30 cm tall. Stem and  
lvs light gm, fls white

5987 Dryopteris Euphorbiaceae x1  
Tree, 6m. 7 cm diam. Bark dark brown, yg  
fringe light grey → brown. Fruit

7 x 7 cm, dark gm, beaked  
Associated with Shorea - yellow  
mid-section. Fruit x-section w/ numerous  
white squishy seeds. 1.5 cm diam, and  
rounding watery white latex.

5988 Mimocydon Metastemataceae X10  
Tree 12m, 15 cm dbh. Bark light grey,  
bark thin. Fruits 3 cm diam, dull dark  
brown. Seed 1, yellowish yellow testa,  
leaky, 1 cm across embedded in green flesh

5989 Hoya Asclepiadaceae X4  
Epiphyte of Mimocydon (5988). Lvs.  
succulent, ~~glossy~~ glaucous blue. Fls white

5990 (Ptilospermum ?) Maraceae X2  
Climber on Mimocydon (5988). Stem and  
petioles dark brown red. Fls. in pairs of  
perianth bracts below, fls light purple.

5991 Lichen from leaves of (Ptilospermum  
(5990))

5992 Shorea Dipt (DNA) X10  
Tree, ~~15m tall~~ 15m tall, 75 cm  
dbh. Bark light brown heavily  
lichen branched. Lvs. dark thick  
leathery, light green below. Calyx  
in ays green for the bottom quarter, red  
top. [Eugenia? bark]

LAST ONE WAS TENKAWANG TELUK  
C, CHERAK

5993 Lichen bark of Shorea (5992)

5994 Lichen bark of Shorea (5992)

~~5995 Unknown (Boraginaceae) X2~~  
~~Terrestrial herb 10-15 cm tall~~  
~~Green~~

5995 Unknown (Boraginaceae) X2  
Shrub 1m tall. Fls. brown. Leaves, dark  
green above. ~~Calyx lobes 5~~ Sepals  
5, white. Fls. brown, ridged

5996 Liliaceae (DNA) X3  
Terrestrial herb. Frs. smelly yellow-orange  
2 x 1 cm, eccentric on peduncle. Seed 1,  
white

5997 Psychotria Rubiaceae (DNA) X9

Tree, 4m. Lvs. dark green, very light green  
below. Frs. 2 x 1 cm, light green. Fls. red  
stipules. Seeds white, 2. Frs. "crispy"

\*5998 Lichen bark of Psychotria (5997)

\*5999 Lichen bark of Psychotria (5997)

6000 Dysosylum Meliaceae x1 (2A)

Tree, 8m, 10 cm dbh. Bark gray-brown  
Frt 7x5 cm, furry green, on 5 cm peduncle.  
~~Section~~ In x-section 3 seeds, one  
developing, 2 aborting, white flesh  
Lfls leathery, hyaline.

6001 Lichen on lfls of Dysosylum

6002 Dysosylum Meliaceae x1 (DNA)  
Shrub, 2 m Bark red-brown. Buds reddish

x6003 Toadstools

Yellow orange toadstools on ground. Stalks  
to 15 cm x 1 cm, caps 7 cm across

~~x6004~~ Lichened lfls of Dysosylum  
(6002) 5909. [CHT 69.02]

RIDGE

6004 Rubiaceae (DNA) xTA  
Tree, 3 m. Bark light gray, fur  
ly and frt light green. Frt  
single, 1 cm diam, 2 pale white  
seeds



6005 Artisia Myrsinaceae (DNA)

Tree, 7m, 10m dbh. ~~lvs~~ branched  
pagoda like at apex. lg twigs  
and ggs lvs ll brown red  
underside. Frts 1 cm diam brown-red.  
Seed core, white

6006 Leaf lichen from Artisia (6005)

6007 Bark lichen from Artisia (6005)

6008 Artibeus Annonaceae X3

~~Climber~~ Bark black. (pink brown-yellow)  
5 cm across

6009 Artibeus Euphorbiaceae X4

Tree 4m, bark light gray lvs light  
gray, brown below. Frt 1 gm, 0.75 cm,  
ovoid, 1 cm long (DNA)



Sunday, Feb 5 1995

112 0  
5- 5  
15.3 6  
205 5.2

Camp Mud

\* 6010 Toadstools

Gray toadstools growing on wood. Stalks white, to 8 cm long. Caps to 3 cm across

\* 6011 Toadstools

Terrestrial toadstools. Stalk white, to 12 cm long. Caps gray-brown, to 8 cm across

\* 6012 Toadstools

Toadstools on rotting wood. Stalks stark orange-brown, to 8 cm long. Caps thick, light orange-brown, to about 7 cm diam

\* 6013 Fluorescent toadstools

White toadstools from rotting wood. Semi-translucent and fluorescent at night (jamm malam)

\* 6014 Orange gray bracket  
fungi on rotting wood

\* 6015 Yellow orange fungi  
on rotting wood

6016 Asteraceae x 5  
Terrestrial herb, to 50 cm. Can  
get to 1 m fls white, lvs gray and  
very sticky

③ ✓ CUTTING BLOCK RIDGE ③

340 m

↙ 0 42 50.2  
112 50 08.0

6017 [Photo] Shorea Dipt. tree, 30m, 90 cm dbh. Bark dark  
gray, deeply fissured. Buttresses thin  
up to 1 m, 2 m at lvs dark green  
calyx rings red. Lf lichen green (D  
N  
A)  
(Mahabangay - Kahangan)

6018 Zingiberaceae x 2

~~Epiphyte~~ on Shorea (6017) lvs red.

↳ Near main + terrestrial?

6019 Epiphytic fern on Shorea (6017/X4)  
Spring shoot on / vs INA

6020 [LENTANG] [Photo] Mn X 2  
Tree, 30m, 70m dbh, Bark red-  
brown, bark longitudinally fissured  
Buttresses 4m up 2m and  
[SBK - ABOVE II] STERILE

6021 Epiphytic fern

SCORE

X1

6022 Shorea Mn [Photo] [BUNYIT]

SAMPLE FRITS AND FALLEN LEAF

Tree, 35m, 130cm dbh. Bark dark  
brown, vertically fissured. Frits red,  
calyx wings about 4cm long.

6023 - CHECK IT OUT Liliaceae X 8

[SPILTING] [Photo]

Sagittaria? found by buttress of Shorea  
(6022). Plants 10cm tall, short roots  
stems light orange. fl. transparent "bulb",  
2cm tall w/ 5 processes 7cm long

Offshoot 1st and

Transparent vit. orange. When it came off, 3  
processes visible below.

About 8 in this grove about 1m<sup>2</sup>

[Corolla falls away - connate

6024 Theaceae DNA X1  
Tree, 5 m. Bark dark brown. Fl  
6 x 4 cm, gm w/ brown warts, 5 calyx  
lobes. Seed pale yellow w/ brown testa.  
2 white flesh.

6025 Apocynaceae DNA X1  
Tree, 5 m, 7 cm dbh. Bark light  
brown, smooth. Fls bright orange, 4 x 2 cm.  
Seed white, within purple testa 2 locules  
obovate. [Moto]

6026 Garcinia Clusiaceae DNA X4  
Tree, 5 m, 7 cm dbh, stilt rooted. Bark  
dark red-brown, wood yellow. Lat pale  
w/ cream colored latex. Lvs dark  
abv, light below. Fls gm, 3 cm diam,  
calyx lobes reflexed

x6027 Leaf lichens from Garcinia (6024)

6028 Unknown DNA X5  
Climber on Shorea. Bark gray, fissured  
vertically. Medios blue w/ yg lines and  
ridge w/ rust-red intermediate. Fl. buds  
green, lobes 5, 2 locules

6029 Shorea Dipt MK x10 DNA  
Tree, 25m, 65cm dbh. Bark red-  
brown, deeply vertically fissured. Buttresses  
70cm up, 2m out. Fls - calyx yellow  
[Photo] \* COLLECTED \*  
~~6029~~ [Wood yellow]

6030 Shorea Dipt MM x10  
Tree, 25m, 65cm dbh. Bark gray on  
outer scales, red on flaking. Wood  
cream. Buttresses 2m up, 3m  
out. Lvs v. glaucous below. Calyx lining  
yellow DNA

\* 6031 Brachy furus x1  
Huge bracket fungus, 60cm across on  
rotting log. Pale brown above, light blue  
surrounded by small flies

6032 Adusia Myrsinaceae x1  
Shrub, 50cm tall. Lvs leathery, light  
green blue, venation barely visible, 30ms  
invisible. Berries green w/ red dots. Single  
seed light green



6033 Pinanga Araceae X1  
Herb, 60 cm tall. FAs 2 cm long, gm-white,  
single seeded.

✓ CAMP MID

6034 Pometia pinnata - Sapindaceae 7

DNA

Tree, 15 m, 40 cm dbh. Bark gray, flaking  
thinly. Wood yellow. Young branches and  
inflo shoots of light brown indumentum.  
Fls small. Petals 5 x 3 cm green,  
recepting thence red to <sup>purple</sup> black. Pet white,  
very early. Seed oil. Green

6035 Prokaceae DNA x8

Tree, 25 m, 30 cm dbh. Bark grey. Fls  
orange-yellow 1.5 cm long. Petals ripening  
black, 1 cm long, red rim. By river

6036 Chisochortus Medicaceae DNA

Tree, 8 m, 15 cm dbh. Bark light grey,  
wood yellow. Lvs dark glossy green above,  
light blue below. Petals 10-6 cm across, slightly  
buff brown, fuzzy to touch. Seed  
hard, dark brown testa

Leaving rd - on shore  
4.5 Km from Camp Mid



Camp up FABACEAE

6037 ~~Leguminosae~~ (DNA) X2  
Climber. Fls to 12-12x6 cm, brown  
w/ dark brown veins. Seed 1 in 1 or 2,  
~~seeds~~ light green w/ in white flesh

6038 Rubiaceae (DNA) X2  
Climber. Lvs below and in fls large branches  
w/ short internodes. Fl. buds green - on Komposin

6039 Vitaceae (DNA) (Komposin) X4  
Climber on ~~Amorpha~~ (6034) Lvs glossy  
fls red, 1 cm long. Petals, white. Fls ripen  
cherry-black

6040 Orchidaceae X4  
Epiphyte on ~~Amorpha~~ (6034). Fls  
very orange, 1.5 in long, Komposin

6041 Unknown Dioscoreaceae X3  
Climber. Fls on stem, white, ripening black

6042 Mimosaceae - Euphorbiaceae X2  
~~Small tree~~ Tree. Crushed beneath  
Jelled Shorea Lvs glaucous blw

6043 Cannaraceae? X3  
Climber on ~~Dioscoreaceae~~, Lvs leathery,  
light green, fruit 4x2 cm, red, ripening red.

FREE STAR MAP - "SEEING STARS"  
ABC

Get new "Chieftain" album  
↳ The Long ~~Brown~~ <sup>Dark</sup> Veil  
'See Smiled' [RCA]  
Recommended

Feb 8 1995

Exp to CR from Camp Ranjung

Camp Ranjung - 210m

0° 50' 45.6"

112° 52' 47.8"

Dohoi

6044 Bocconia argulata [Umbing] X 8

Tree, 12m, 30cm dbh. Bark thin, light grey.  
Fls red, 8x3 cm. Seeds inside white, del. can!  
From forest, planted in this today. Lvs & terminal  
pseudostem, green, 30 var available. Info Paul re: flower

6045 Durio

[Lakan] Bhs Dohoi

X 4

Tree, 10m, 40cm dbh. Bark orange, red-brown.  
Fls at base. Fls 25cm long 1.5cm wide,  
oil yellow, dry, pale yellow. Fls skin yellow.  
Fls in bud

6046

~~0° 47' 51.15" / 112° 50' 02.7"~~

Func. — 0° 46' 26.9" / 112° 49' 04.6" <sup>1</sup>/<sub>5</sub>

Rafflesia On island in middle of river -

Camp! One bud found, 35 cm across.

Seeds orange-red, bracts dark red-brown.

[Kuncang - Mt Darum]

Sun Feb 12 1995  
~~Mon~~

Camp 3.      0° 42'    56.6"  
                 112° 46'    46.5"

[ Large grassy fluctuations - 330-550m ]

~~#8~~ → Bur River → ~~#8~~

6047 Holciopsis? Proserpin? x2

Shrub, 3 m. Bark dark red-brown. Frs  
strongly dissected. Frs caniform in a  
gr of 5, 1 x 4 cm, bright yellow-orange.  
Seed are, large, white, frt wall 7mm thick.  
[ ~~Elisanakolap~~ ] - said to be common frt can  
be eaten, but not seed. [ Buryan

~~6048~~

[ Baucanulred Tunding unday - frs  
edible - used in veg. - ~~also~~ eaten too.  
[ ~~Aporosa~~ - Pilung ]

6048 1 x ore

Shrub, 50 cm tall. Frt dull green-yellow,  
1 cm long. x2

6049 Miuron Tilione x1

[ Pohnanbung ]

Tree, 5 m, 10 cm dbh. Bark dark brown

[~~Big~~ red Uboh metum - large shrubby plant] <sup>Hand</sup>  
Lvs and gg. hgs. of dense induratum.  
Frt's dog shaped, 7-2 cm, bright orange

6050 Artocarpus anisophyllus Moench x 4

[~~K...~~] Tree, 25m, 40cm dbh,  
fluted at base. Bch. dark brown-grey  
vertically narrowly and shallowly fissured.  
Cut both, landing sap. Frts 30cm. diam.  
yellow frs cpl. [Seedling of cpl.  
and cpl. lvs]. [Fr. eaten - s. seed - uncooked  
both used for rope for boat making (Lvs &  
seedlings very a lot)] [Boat]

6051 Saurauia Saurauia x 6

[Butu agn (dog-hair)] Shrub,  
2m. ~~frs~~ Fls bright red outside, white  
inside.

6052 Acmene Martaceae x 5

[Uboh] - used for household implements  
Shrub, 1.5m. Rather purple or like  
celery tube.

6053 Canavalia (C. n. lvs) x 1

[~~Pongala~~ - large Pongala up - for  
water for drinking, then cut]. Climber, frt  
10x5cm. orange yellow lvs.

~~6054 Crypt~~

~~E~~

6054 ~~Cryptanthus~~ Melastomataceae X4

[Lochte Karamut] Shrub, 3m tall.

Ffts gm, globose, 3 cm diam. Cotyledons  
forked like a cabbage leaf.

6055 Pinanga

X1

Shrubby, 2m tall, flexuous. Stem dark  
brown. Seeds of sagittolobate, 2 cm diam,  
gm blw, white abv.

6056 Euphorbiaceae Drypetes X1

Shrub, 75 cm tall. Lvs glaucous, dark  
abv, light blw. Frt dark gm, 1 cm  
across

6057 Calophyllum Clusiaceae

X10

[Metan - household stuff]

Tree, 6m, 10 cm dbh. Bark dark  
red-brown, smooth. Fls dull mustard-ylw,  
sub-globose, 2 cm dia. Seed cre  
-ylw in a light brown testa, frt 1/2 thin beak.  
[Locals recognize 2 types]



6058 ~~Sapindaceae~~ Meliaceae 13  
Shrub 1.5m. Fls yellow-orange, 6 cm  
across, 3-seeded. ~~Seeds~~ ~~dark~~ dark brown  
w/ fleshy oil, slightly sweet, edible.  
Lvs w/ large clashing stripes. Flts light  
green. Fls light cream-yellow.

6059 Gesneriaceae X 3  
~~Herb~~ Herb, 20 cm tall. Fls cream-white.  
Ephemeral by ephemeral creek.

6060 Annonaceae X 4  
[Mahoe - but wood for firewood]  
Tree, 6m, 8cm dbh. Bark smooth, dark  
brown-black. Flts ripening soft, light  
orange w/ white flecks, 4 cm diam.  
glabrous. Seed small < 1 cm diam. Carved  
w/ transparent orange, turning large, w/  
flt, 5 cm wide.

6061 Ardisia Myrsinaceae X 8  
Tree 4m, 10cm dbh. Bark light  
grey, smooth. Lvs distichous. Fls deep  
corolla sepals pollinated fls reflected.

6062 *Araceae*

x1

Arborescent, 5 m, 10 cm dbh. In flo. 2/3's way up stem, rachis red, frs green turning white. Fronds to 2 m long.

6063

*Rubiaceae*

[*Maras saindlem*]

x3

Shrub, 75 cm tall. Fruits ripening dull red purple from white.

6064 *Annonaceae* [Marchais toing marchais?] x48

Shrub, 3 m. Bark black, smooth. Frs 1 cm long, deep red.

6065 Unknown

x1

Shrub 3 m, bark grey. Frs cream-yellow, 6 cm long. Seed 1

6066 *Euphorbiaceae*

x5

Shrub, 2 m. Bark light-grey, lvs very light green below. Fruits ~~very~~ red, 2 cm across, splitting to expose black seeds. Frs 3 lobed.

6067 *Melastomaceae* (*Dysocaulon*?) x1

Tree, 3 m. Bark dark brown. Black frs, 6 x 3 cm ~~long~~, 1.5 cm deep, green ripening red. Seeds 7, green in x-section.

6068 Annonaceae

x1

Shrub, 0.75m. Bark dark red-brown.  
Lvs light green below and 30% iridescent.  
Fl 1.5 cm across, skin in bud (just)  
white.

6069 Annonaceae

x1

[Kaju sapuh] - Bark burnt to keep bad  
spirits away. Tree, 4m, 5 cm dbh. Bark  
smooth, light gray. Wood cream-yellow.  
Lvs light green above, pale blue 1 fl. calyx green.  
Frts green, drop shaped, 5 x 2 cm

6070 Pinnanga Araceae x2

Araceae, 2m tall, 1.5 cm dbh.

Frts 1 cm long, dark green above, light green  
at base.

6071 Michelia Magnoliaceae x1

[Bojoran] - Fr. wood

Tree, 5m tall, slender. Inflorescence 15 x 7 cm,

cream-yellow, frts of brown perianth.

Apparently uncommon, found only  
by trees.

6072 Krema Myristicaceae x6  
Tree, 4m. Lvs light green above, glaucous below.  
Fl. buds light brown. ~~Both light brown,~~  
~~smoothish~~ Both red-brown, smoothish.

6073 Piper Piperaceae x1  
Climber on Krema (6072) Fls shiny light  
red, single seeded.

6074 Fern x2  
Epiphytic fern

6075 Euphorbiaceae x1  
Shrub, 2m. Infls terminal, 25cm long, fruits 1cm  
long, 2cm wide, soft, white N/1 white seed  
(1cm x-section)

6076 Pinanga Arecaceae x3  
Arborescent, to 1.5m tall. Frt globose, 1cm  
diam, white, gon at apex.

6077 Occhidaceae x4  
Epiphytic orchid on small tree. Fl. bud  
5x2cm, white. Frt. 8x6cm, 6-winged  
(longitudinally) w/ remnants of flower  
stomach.

6078 Schefflera Araliaceae x 2  
Climber. All leaf and leaflet nodes swollen.  
Frts 1 x 0.5 cm, ripening red from yellow.  
[Burundi]

~~6079~~

6079 Ayalaia Meliaceae x 6  
Tree, 3 m. Bark red-brown. Yg lvs all coriaceous  
light rust-brown in anthesis. ~~Very~~ Very common  
along river banks

[Boko berako - frts edible]

6080 Unknown [Rose 'nt] x 4  
[~~Flowers~~ frts used as fishing bait]  
Climber. Bark light brown. Frts fleshy and  
pink-red, sub-globose. Seed are in white  
flesh tasting like a sickeningly sweet perfume.

6081 Grass  
Grassy on shores in flood area of river


6082 Syzygium Myrtaceae x 20  
Shrub by river in flood area. To 6 m tall,  
bark light gray/red-brown. Yg twigs  
light red-brown. Fl. buds white.



6083 Menispermaceae x4  
Scrambles by river bank. Lvs glaucous blue  
fls purple. [THIS IS THE ONE GROWING  
BY ~~RIVER~~ LAUGHING RD. IS THIS  
WHERE THOSE CLIMBERS/SCRAMBLERS  
ORIGINATE? ]

6084 Syzygium Myrtaceae x4  
Tree, weeping over river, 10m long, 35cm  
dbh, stilt-rooted. Bark white-grey. Fls  
w/ numerous white stamens fls light  
gm, sub globose 5x3cm. Seeds 2, testa brown.

\* Biocory. Seeds 2 min frt. 1/2 space taken  
up by air. Testa adheres to coty. Seed  
germinates in frt - carried down stream,  
floating - then break already advanced?

 a coty. joined by tissue in middle.  
[Jambu PACAN? - no ms]

6085 Schizaceae? (Meliosma?) x  
[Koromona - no ms]. Tree, weeping  
over river, 8m long. Bark brown. Kz cream  
frt yellow orange. Seed 3 angled, white  
in cross section, pyrene well brown, 1



shik flesh [young] wings strongly  
in creased.

6086 Orchidaceae

Epiphytic orchid. Fls mustard yellow <sup>x1</sup>

~~At least 17 red stripes~~  
~~6087~~

6089 Orchidaceae

Epiphytic orchid. Fls 6 winged <sup>x1</sup>

~~6088~~

From Camp 2 - Refer to G.P. Reference

6088 Convolvulaceae

Herb - beside river

x2

6089 Nepenthes [Tropical] +2

Epiphytic on tree overhanging river

6090 Orchidaceae

Epiphytic on tree overhanging river. Fls yellow <sup>x1</sup>

6091 Orchidaceae

Epiphytic on tree overhanging river <sup>x1</sup>

Path from Tumana, DANCE TO THUMANA DASA

6092 Nephelium lappaceum - Sapindaceae X 8  
(Lankutan). Tree 15m, 40 cm dbh,  
buttresses 1-5m up, 1m wide. Bark brown-  
black. FRTs 6x3 cm, ripening yellow-orange  
w/ red hair. Flesh relatively thin w/ large  
seed (compared to another, under attachment  
to 2005m, away from base).

6093 Baccaea Euphorbiaceae X 6  
400m slope into well above river. Tree, 25,  
25 cm dbh. Bark light red. <sup>ingose</sup> ~~chocolate~~ inner  
bark red, wood yellow. FRTs mustard yellow, 7cm diam,  
3-lobed, (1E2) seeds per locule. Outer seed 7cm thick,  
inner 5m thick. Seeds white in x-section, yellow flesh.  
Flesh taste, some between banana and pineapple  
flavor. Locals say it can make you small if the fruit if  
you eat too much. Lvs dark above, light below. Red <sup>chor</sup> hairs  
(like Aglaia) on dark and more <sup>thick</sup> 7cm visible in fls.  
~~6094~~ Strombosia Conferans, to 15cm long, stout. [Many <sup>in</sup> ~~in~~  
bunch?]

6094 Strombosia LEAF Fruit can. By river.  
25m 50cm dbh, bark brown, smooth, horizontal  
FRTs red. Tapering. [Tabung bunch].

6095 *Diplazium* - LEAF/Fruit cal. [KINER]  
Tree, 20m tall, 45 cm dbh, widely forked  
at base, gray-brown, rugose. Lichen spotted  
[300m]. Found only near river banks. Common

6096 *Fungus*

Found on rotting stumps. 2 x 2 cm. Grass roots  
w/ stiff hairs. When matured it becomes roundish,  
w/ a white head. W/ 4 base white flat round  
"seeds" 5mm diam. These are released explosively  
~~After~~ this the fungus is identical w/ a few  
gray seeds etc.

6097 *Garcinia* *Chrysocarpa*

[Achiang] 400m on slope. Tree, 2cm, 25cm  
dbh, bark chocolate red, slightly flaking, fruit  
scarlet red. 7 cm across. Seed covered in  
delicious white flesh

LEAF / Fruit cal

6098 *Orchidaceae*

x1

[350m] Saprophytic orchid ~~on~~ in soil  
by rotting log. Flower stem white

15 Feb 1995

6099 Balanophoraceae x lat

Mustard orange flowers - saprophytic -  
growing on side of slope to summit of  
Bukit Raya. 1450m

6100 Lichen on twig - blue green

16 Feb - Summit of Bukit Raya Dam

Check in report behind

16 Feb 1995

MOSS FOREST

6101 Fern B. RAYASHAMMER x 1

Growing in mossy moss clump

0° 39' 35.8"

6102 Fern 112° 41' 20.7" 2310m 7580'

Growing in moss clump

6103 Vaccinium Ericaceae x 8

Shrub, 2m tall at top of large moss clump.  
1.5m tall. Bark red-brown. Lvs leathery,  
light green, midrib red at base of leaves.  
~~light green at apex~~ turning green towards  
apex. Fls 1.5 x 1 cm, white; rather yellow.

6104 Vaccinium Ericaceae x 8

Shrub  
Fls, 2m tall at top of large moss clump.  
Bark grey on older branches, red-orange in  
younger ones. Lvs light green, yellow  
Fls 1.5 x 1 cm Calyx red. Corolla

greenish below, strongly red-purple tinged  
- upper half. Rather orange.

[ Leaves similar to 6107, but a different leaf  
and fl shape? ]

X Braccae Style exserted from unopened bud  
Bud then opens to reveal stamens. Interestingly?

6105 Lichen - Blue green thallus -  
Common on summit - top. Growing on  
Vaccinium

6106 Lichen - Candelabra - Growing, stick  
like, to 3 cm, then bifurcating to  
another 5 mm. Color bright green - the green  
growing on mossy soil

6107 - Moss on ~~summit~~ grand  
Spraying parts covered in water.

6108 Vaccinium Ericaceae X8  
~~Stem 2m~~ Short 2m or more clump.  
Lvs brittle - leathery, light grn, base  
smooth, red brown, frs white,  
1 x 1.5 cm, 4 red seeds (tiny), Style



persistent, erect, 1.5 cm

6109 Vaccinium Ericaceae

Shrub, 2-3m. Bark rugose, red brown  
Fls. ~~And shape of leaves~~, 3 x 1 cm, tapering  
to base, light red. Anthers brown on  
yellowish filaments. Fruit green w/  
large, vertical orange stripes. To 3m  
across VIVIPAROUS

6110 Lichen

Growing in circular patches on large and  
seemingly old rock. Patches are dark grey, 8 cm  
diam.

6111 Lichen

Green "leafy" lichen growing on trunks and  
moss clumps

6112 Nepenthes

x2

Common epiphytic moss forest on summit and  
~~and~~ below summit of B. Jaya. Pitcher to  
15 x 10 cm. "lid" about 12 x 12 cm - rel. large.



used to make tea

6113 Phyllocladus [Aphoi] x4

Shrub, to 1.5 m tall. Bark grey-brown. Only one collecting found sprouting - in fl. 4 cm long, brown. Frequent on and below summit (Strong resin smell and sticky exudate from cut parts)

6114 Nepenthes

Common epiphyte on and near summit of B. Rang. Fls - calyx lobes green, 6 x 3 cm. Anthers dull orange or green process. Pitcher to about 15 x 5 cm. lid ~~deltoid~~ deltoid, 6 x 4 cm, long hairs on ridges of wing

6115 - Rhododendron Ericaceae x2

Came shrub on summit but rarely flowering. To 1.5 m, bark dark red-brown, young twig and leaves covered w/ brown scales. Lvs thick, bullate. Flower 3 cm across. Corolla white, outside and on pedicel covered w/ brown scales. Stamens ~~7~~ 9 anthers brown white filaments. Style covered w/ brown scales for first 3/4 of length. \* Bracts brown scaled on outer edge \*

6116 - Rhododendron Ericaceae x2

Epiphyte. Occasional on and near summit of Bukit-Raya. Bark grey, longitudinally striate. Leave leathery, dark green above, red below on yg lvs. Pedicels of red w/ yellow dots (lenticels?). Corolla

tube 7 cm long, ~~corolla~~ corolla 6 cm across  
Stamen orange, stigma orange. Frts dark red.  
5 ridged (one per lobe), 6 x 1 cm, style  
persistent, 6 cm long.

6117 Orchidaceae

x6

~~Epiphyte~~, infrequent on summit. On moss-sail  
Herb, to 30 cm tall. Fls light grn w/ orange  
hairs.

6118 Orchidaceae

x9

Infrequent on summit. On moss sail. Herb, to  
20 cm tall. Fls dull orange, inflo to 10 cm long

6119 Loranthaceae

x6

Epiphyte on Vaccinium. Fl. buds to 2 cm long,  
red. Frts subglobose, 1 cm diam, yellow-orange  
w/ 3 mm of style persistent at apex. Frt 1, gm outside,  
of light grn & white in x-section

6120 Vaccinium Ericaceae

x8

Shrub, to 2 m tall. Bark scurfy red-brown.  
Frts yellow globose, 4 cm in diam. diam  
of calyx remnant at persisting apex

(612)

6121 Vaccinium Ericaceae X1

Shrub, to 2 m. Bark red-brown w/ dense tomentum. Fts red-ger, glossy, w/ persistent calyx. Seeds small in white semi-tomentous gel.

PATIDAN GRASSMOUNT

6122 Melastoma 2200-1750 X6  
-1730m

Tree, 4 m. Fls purple, stamens yellow.  
Bark light brown, small-flaking

6123 Bryophyllum - epiphyte on tree  
in moss forest

6124 Moss - on tree at 2000m

6125 Scrambler in moss forest. Bark gray X8  
Levs leathery glossy above, glaucous below.  
Fls white, small, regularly crumpled. [1900m]  
[Unknown] [on exposed ridge]

6126 Syzygium Myrtaceae X5  
Small tree, 5m. Bark gray. Fl. buds white  
[1900m] [on exposed ridge]

6127 Zingiberaceae X2  
Epiphyte on small tree in moss forest. Lvs.  
brach orange white on edges

(6128)

6128 *Ericthidusa* X3  
Epiphyte c. 10m in moss forest, on exposed  
ridge. lft. light green

6129 Fern X3  
Terrestrial fern in moss forest  
at 2000m

6130 *Cinnamomum* *lanceolatum* X1  
Tree, to 3m. Lvs. of mango smell when  
crushed. One sample taken as voucher

6131 [Hann] *Dacrydium* X4  
[Skinner] Small shrub, 1.5m, growing  
on top of BRAMA [2200m] [Skinner]

6132 [K'ann BARAN] - *Hedyotis* <sup>W800</sup> X4  
Tree, to 30m. (Skinner voucher specimen)

6133 Sedge in open area of moss  
forest, 2000m

6134 *Castanopsis* - *Fagaceae* X3  
[Leaf / fruit collection] [1800m]  
In moss forest / *Fagaceae* forest transition zone  
Transition zone of ~~Transition zone~~

Tree, 20m, 35cm dbh. Bark  
grey grey-brown

6135 Orchidaceae x1  
Epiphytic orchid on tree in moss forest  
at 1900m

6136 [TOERAP Ngaring] x2  
Small common pitcher plant  
growing among moss

6137 Gesneriaceae x3  
Hb, to 15cm, growing on soil in moss  
forest at 1800m

6138 Nepenthes x1  
Sp. growing on moss in moss forest

6139 Rhocharandra x1  
Epiphytic. Fls red, 6 x 3 cm.  
In moss forest, ca. 1300m

6140 Moss on tree in moss forest - 2000m

6141 Moss on tree in moss forest - 2000m



6142 Lichen  
- Leafy lichen on rocks and mosses  
in moss forest 2000m

6143 Lichen  
Lichen on branch in moss forest at 2000m

6144 Moss - 1900m

6145 Moss - like little Christmas  
trees, 1900m

6146 Moss at 1900m

6147 Moss at 1900m. Growing  
in circular fashion



6148 Moss at 1900m

6149 Moss at 1900m

6150 Moss at 1900m. Small sample



6151 Moss at 1900m

6152 Small ~~leafy~~ mosses }  
6153 " " }  
~~6154~~ " " }  
" " }  
" " }

6154 Orange toadstools at 1900m

6155 Terrestrial toadstool  
at 1900m

6156 Moss at 1900m

6157 "leafy" lichen at 1900m

6158) Thallus lichens at 1900m  
~~6159~~ (6167)

~~6160~~

6168 Epiphytic bryophyte at 2000m  
Very common

6169 Moss at 2000m

6170 Lichen on living tree at 2000m

6171 Moss at 2000m

6172 Lichen - crusty - on tree at  
1730m

PLI FEB 17

Friday Feb 17 - 1730-400m

6173 Durio Bombacaceae X5

[TOKOI] - Common on slopes and by river.

Tree, 15m, 50cm dbh. Bark red - chocolate brown  
w/ light brown lenticels. Inner bark fibrous  
light brown, wood yellow brown. Buttresses to  
3m up, 2m at, thin. Fts light green  
15cm diam, strongly spined. Fth 2-5 lobate,  
4 common, many w/ 2-3 w/ evidence of  
aborted buds. Seed wrapped in buttery and  
very tasty yellow oil. Seed white in X-section  
except for yellow-brown embryo [LEAF & FRUIT COL.  
SECTION]  
Said to ~~be~~ eaten by bear and pig, unless  
~~man~~ man gets there first.

[ON SLOPE 690m] [Dipt Forest]

6174 Anacardiaceae

Tree, 20m, 60cm dbh. Bark dark brown,  
ridges vertically furrowed. Inner bark red  
w/ slight white-yellow saps. Fth 15cm w/  
yellow flecks, 10-18cm and beaked.  
Smell strongly of mango. [645m]  
[FRUIT AND LEAF COLLECTION]

Quercus

6175 Lithocarpus Fagaceae

Tree, 25 m, 1 m dbh, buttresses to 2 m up and 4 m out. Bark grey-brown, shallowly vertically fissured, deeply marked. Inner bark red laminated yellow, blue to black brown. Wood ~~numerous~~ numerous yellow lentils running in vertical lines. Fls 5 cm across, ~~2~~ 2 cm deep - flat appearance. [Tchard - common by river and slopes. Good firewood.]

6176 Litsea Lauraceae X1  
Branch of fruit found on ground. Fls red & green cupule.

6177 Orchidaceae X2  
Terrestrial orchid at 1800m. Fls white

6178 Orchidaceae X2  
Terrestrial orchid at ~~1700~~ 1700m. Fls purple, lvs purple green

6179 Unknown X1  
Herb at 400m in flat area by river. Fls white

6180 Antidesma Euphorbiaceae x1  
Shrub at 1800m. 2m tall. Frts 2x1cm,  
slightly beaked, light red-green

6181 Agathis Podocarpaceae x1  
Seedling taken at 1800m - Voucher

6182 Melastomaceae x2  
Herb, 20 cm at 1600m. Common down  
to wireles at 250m, perhaps beyond

6183 Fern x2  
Terrestrial fern at 1800m

6184 Euphorbiaceae x1  
Herb, 30cm at 1800m Fls white

6185 Fern x3  
Terrestrial fern at 1800m

6186 Unknown x3  
Herb, 10cm tall at 800m. Lvs white spotted

6187 Antidesma  
Tree, 8m tall. Bark light gray.  
Inflorescences candeliform, to about 20cm long.

Frts 1 cm diam, subglobose, pink

6188 ~~Urticaceae~~ Liliaceae xB

Terrestrial herb, 30 cm. Frts glaucous, glossy red,  
sub-globose, 1 cm diam, trilobed persistent  
style remains abv. Seed one, gm-white.

6189 Orchidaceae

x4

Epiphytic orchid at 1300 m. Petals cream w/  
red stripes

6190 Unknown

x1

Terrestrial herb at 300 m by riverside  
fls white.

6191 Annonaceae

Tree at 800 m primary forest. Tree, 5 m, bark  
dark grey. Tepals equal sized, dull  
green-purple, 3 x 1 cm

6192 Unknown

x2

Frts only. 2 fused on ground. Dorsal per  
shaped, 12 x 6 cm, light blue, gro.  
Core yellow w/ numerous seeds (small)  
Calyx persistent, accrescent.

6193 Frond like lichen at 1800-~~2000~~  
Blue grn. Epiphyte on tree

6194 Dark grn. - blue + thallus  
lichen on tree at 1800m

② ~~164 DIVER 300m~~ ②  
6195 Orange-yellow bracket  
toadstool. No rivet at 300m

6196 Large white toadstool. Stipe  
4 x 2 cm, cap oboconical, 10 cm across,  
1 cm thick, ~~the~~ mushroom texture

6252

~~6196~~ Crimson red bracket  
fungus at 300m

6197 White toadstool. Stipe 5 x 1  
cm, cap 7 cm across

6198 Thin but firm orange-brown  
bracket fungus on cutting log



6199 Grey toadstools on  
rotting log. Stipe thin, 6 cm  
cap 1 cm across

6200 Brown bracket fungi on  
white margins on rotting wood

6201 Bracket fungus  
Ochre-white above, white below

6202 Toadstool.  
Stipe white-gray, 6 x 2 cm. Cap  
4 cm diam, gray-green

6203 Bracket fungus on  
fungi. Metallic green-gray  
above, white below.

6204 Bracket fungus Orange-  
brown above, strongly ridged below.

6205 Obconical toadstools  
on rotting wood. Brown within,  
gray on the outside

6206 Lichen on tree at 2000 m. Thallus, blue-green

~~6206~~ 6207

18 Feb 1995 - Sat - Rest day



By River - CAMP 7/350m



6207 Dimocarpus Sapindaceae x5

[LAKOWI] Tree, 15m, ~~40~~ 40cm dbh.  
Bark grey, fissured. Fts 3cm diam.  
subglobose, strongly warty ~~leathery~~. Fls  
corolla light buff brown. Petal thin, white-  
translucent. Seed dark glossy ~~red~~-brown,  
2-3 cm across w/ 1 cm diam white cotyledon,  
cream in x-section [Inflorescence bran at  
thick vertically running rachis, strongly ribbed,  
5 slightly accrescent glumes lobes persistent  
at base of mature fruit in strong at  
inflorescence]. [Common by stream/river and  
other flat areas. Grown in ~~the~~ local  
gardens or esp. deliberately.]

6208 Fabaceae

x4

Climber. Growing by river. Fls pale  
yellow. cream w/ brown anthers.

6209 Xanthophyllum? Myrsaceae K/D

[Meyenia] Tree, 10m to about 50cm

dbh. Bark white, light grey, smooth.

~~Bo~~ ~~Cracks~~ ~~perid~~, 6 cm diam, light orange ~~at~~  
~~and~~ ~~rough~~ ~~to~~ ~~tan~~ and slightly rough to ~~and~~  
Frt. well 5m thick, ~~carpels~~ ~~seemingly~~ 3,

walls incomplete. Seeds ~~are~~ (2-3), covered  
in tasty white flesh. Seeds white in x-section

revealing ~~light~~ red cotyledons. Leaves  
thinly leathery, dark glossy green above,  
light below. Tinge both light grey

[W. common by river, ~~5m~~ ~~Extinct~~ ~~at~~ ~~probably~~ ~~lost~~]

-6210 Areaceae Licula x1

[SIRAT] ~~Araceae~~, to 75 cm tall, Frts  
1 x 0.5 cm, glossy light red, Seed 1, semi-  
transparent white color in x-section of red  
endosperm.

6211 Malvaceae [Sumbawa?] x4

Tree, 4m. Bark ~~small~~ Bark brown, tinged  
both of small horizontal orange-red  
lenticels. Frts 1 cm diam, globose, single  
seeded. Stamens persistent above with  
pounded cap



Sunday Feb 19, 1995 River - CAMP 3  
→ CAMP 1

Bar River

6212

Tristania

Myrtaceae

X 7

Tree, ~~to~~ weeping over river. To 10m tall, 30cm  
diam. Bark red, peeling strongly. Lvs light green  
below. Calyx cream-green, Petals 5, white, quickly  
caducous. Stamens yellow-brown. V. common along  
river banks.

6213

Syzygium

Myrtaceae

X 3

Shrub, 3m tall, 2 or 3 trees ~~in~~ sometimes ~~found~~  
in middle of river (~~in~~ ~~water~~ bald red).  
Lvs light green. Fls 4x2 cm, petals white,  
caducous. ~~Stamens~~ white.

6214

Meliaceae

X 3

Tree, 4m in river bank. Midrib red hairy  
below on ~~and~~ are young twigs. Fruit 4x2 cm,  
orange-brown. Ring, exuding white sap on  
opening. Anal 5mm thick, almost colorless, translucent  
Taste thin, purple. Seeds 2, orange green  
X-section

6215 Climber

Both light gray-brown. Lvs light greenish  
w/ prominent 2° lvs prominent. Fr + velvety  
brown, slightly ribbed, sitting on 5 persistent  
calyx lobes. Lind 7mm thick, sud as, gon. X4

6216

Rep

Terrestrial fern on river-bank. Very  
Common X5

6217 Rubiaceae

X3

Tree, 5m. Lvs thickly leathery. Fruit greenish  
w/ red stripes, subglobose, 2cm diam. 2 seeds

6218 Dryopteris Rubiaceae X2

~~Small tree~~ Tree, 3m. Lvs and young stems  
light green. Fr + velvety brown, subglobose,  
6cm diam. Stylar column prominent.

6219 Dimocarpus Sapindaceae X3

Tree, 10m, 40cm dbh, creeping over river and  
herabandoned can be side away from  
water. Bark light gray. Inflect. rachis  
strongly ribbed and L-shaped frt light  
yellowish brown. ~~lvs~~ Vented strongly.  
Seed 1m fleshy and - seed w/ fleshy



bram testa (appearing purple under air)  
Seed white in X-section

6220 Dendrobium - Orchidaceae ~~x6~~ x6  
On rocky stretch in middle of riv. Hob,  
35 cm tall, Fls purple, 4 cm long.

6221 Verbenaceae x6  
~~Shrub~~ <sup>Climber</sup> 2m. Bark green and light brown.  
Lvs leathery, light green below. Fleshy near fleshy  
purple from white, containing 2 seeds. Fleshy  
very watery

6222 Araliaceae x3  
Shrub, to 30cm, found on rocks by river.  
Young lvs flesh red, older parts & petioles.  
Fls yg, green.

6223 ~~Hem~~ Hemalolera Araceae x1  
Hob by river-side, 40 cm tall.

6224 Sandoricum Meliceae x5  
[~~Baka~~ Bahpu - lvs edible]  
~~Tree~~ Common on riverbank Tree to 10m tall,  
35 cm dbh. Bark grey. Lvs glossy, light green  
Frt yellow, 6 cm diam seeds 3, reddish



embedded in white pithy fleshy

6225 Orchidaceae X2  
Epiphytic on tree by river. Flower yellow  
orange. Foliage green 12x1 cm, ribbed.

6226 Nandea X5  
Tree, 4 m. Lvs leathery, very light green below.  
Young twigs & red-brown bark smooth ~~and~~  
arcs remain for cuts. Inflo. terminal,  
globose, 4 cm diam.

6227 Rubiaceae X10  
Growing on rocks by river  
Shrub to 1 m tall. Bark gray green, fls young  
green, seeds white.

6228 Orchidaceae X2  
Epiphytic orchid. Inflo to 20 cm, fls minute,  
dull mustard yellow.

6229 Syzygium hirtum Myrtaceae X8  
Tree, 10-15 m. Bark moss-covered,  
youngest twigs green hairy. Older twigs  
red brown, still hairy. Inflo. light red  
softly fleshy. A buds green & yellow.

6230 Orchidaceae x 2

Epiphytic orchid on tree by riv.  
Fls small, white.

6231 Rutaceae x 6

Herb, creeping by roadside Fls white,  
c 1 cm long

6232 Medinilla Melastomataceae

Epiphyte on tree by riv. Lvs leathery,  
dull dark green above, light below. Fls  
opening orange, ~~then~~ globose,  
almost 1 cm diam. Numerous small  
white seeds

6233 Rutaceae x 8

Tree, 3m. Trunk bark red brown, slightly  
vertically striate. Fls opening through  
orange to fleshy red, almost 1 cm diam,  
single seeded. (Kolapindi)

6234 Saurauia - Saurauia

Shrub, 3m. Petals 5, white, bilobed.  
Petals numerous, yellow. Styles 5, white

6235 Zizyphus Rhomazea x6

Plumlike both brown and green, strongly  
[6x10cm] lenticelled, fruit green, 5x3cm,  
Seed 1/4 hard like [Drupe?] - effect  
Bitter - [?] [?] [?], brown, in white  
flesh. Sticky gelatinous gelatinous edibles  
sep from int, fings.

~~6236 Antiar x5~~

6236 Acanthaceae x5  
Shrub, to about 50cm

6237 Baccaurea Euphorbiaceae x3

[Crabapple] Tree by river and beyond  
Tree, 12m, 35cm dbh. Frs 15 cartilaginous, orange-  
to 6cm diam. 3 lobes, lobes 3, green,  
of 2 seeds [PLANTED in local Kompong  
Eus large, yellow, of candicans red  
Indumentum in midrib and 20 cm below.  
[Good TASTE]

~~6238 Baccaurea Euphorbiaceae x~~

[Crabapple] Tree by river and beyond  
Tree, 12m, 35cm dbh. Both  
green, frs cartilaginous, to 8cm diam,  
subglobose, most like Yang-lus  
without indumentum. Good tasting,

Just recently planted in hangings. x 8

6239 Dipterocarpus Strobilifolius x 6  
Tree, creeping over river. To 15m tall, 50cm  
diameter and the upper buttressed on side over  
river. ~~Leaves~~ ~~leaves~~ shiny red. (Bark grey  
fissured). Shingles to 8 x 1 cm, yellow  
red, short but densely hairy.

6240 Ericaceae - Alpinia x 4  
[KOROMET - CAN BE GREEN, LIKE B. (HILLOREN)]  
Herb, 1m tall. Fts red, 5 x 3 cm,  
seeds brown, many sided.

6241 Etiliaceae - Panax x 3  
Herb, to 1m. Fts ~~short~~ ~~long~~, 2-3cm  
long. Fts 1cm diam, single seeded.  
[BOM BAN - FRITS EATABLE]

6242 Polystichum Anacardiaceae x 4  
Common on river bank. Tree, 4m. Bark  
dark brown. Fts yellow. Seeds 1 cm diam  
Fts dark green, globose, 1.5 cm diam

6243 Syzygium Myrtaceae X7

On river bank. Tree, 3m. Twig bark  
light red brown. Fls buds white.  
Inflorescences axillary

Mon Feb 20 1995

① Camp 1 g/s Reading ②

6244 Shorea ~~Cleoff fruit~~ x6  
Emeret - Wood good for boards. Tree  
20m, 50cm dbh. Bark light gray, lichen  
patched. Bark used to 2m up. Bark vertically  
fissured. Seen commonly by river-bank, fruit  
yellowish. Also in slopes - many types

6245 ~~Cleoff fruit~~ x4  
Conarus Bursera  
Tree, 15m, ~~at~~ Both gray, strongly lichen.  
Fruit white (Kojukotokung - no uses)

6246 Unknown x4  
Clinker on Dipt sp. Both light  
gray-brown. Lvs light green. 20m  
almost invisible, 20m' wrinkled fruit  
grn, still immature, 5mm diam.

① River - Camp 1 → N JANK ②

6247 Moss on rotting log



6248 Myrsinaceae Rubiacene X5  
Shrub on rocks, to 40 cm tall. ~~Nodes~~ Some nodes  
swollen for ants. V. common

6249 Orchidaceae X1  
Epiphytic orchid on trees

6250 ~~Rubiaceae~~ Rubiaceae X9  
Tree, 6 m. Bark black. Small leaves;  
cluster before shoot splits, ~~the~~ after  
sprouts small lvs expand. Fts glabrous,  
3 cm diam, 3 calyx lobes pointed, Seeds 6.  
Fairly common

6251 Elaeagnaceae X7  
Shrub to 10 m. Bark black. Petals white  
with strong aroma. Very juicy like  
elderberry. Petals quickly caduceous  
V. common.